REPORT RESUMES

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THE WISCONSIN TEACHER EDUCATION RESEARCH PROJECT--DESIGN AND INSTRUMENTATION.
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THIS PAPER DESCRIBES THE DESIGN AND INSTRUMENTATION OF A STUDY TO DETERMINE (A) THE INFLUENCE OF DIFFERENT INSTRUCTIONAL APPROACHES IN TEACHER EDUCATION UPON THE ATTITUDES, PERCEPTIONS AND BEHAVIOR OF STUDENT TEACHERS, AND (B) THE INFLUENCE OF THESE TEACHER CHARACTERISTICS UPON "MENTAL HEALTH" IN THE CLASSROOM. THREE VARIABLES WERE IDENTIFIED--(1) THE INDEPENDENT VARIABLE SUBSUMES 3 INSTRUCTIONAL APPROACHES TO THE SUBJECT MATTER OF 2 REQUIRED ELEMENTARY EDUCATION COURSES ("THE CHILD--HIS NATURE AND NEEDS," AND "THE NATURE AND DIRECTION OF LEARNING")--(A) CONCEPT-ORIENTED (DEVELOPMENT AND UNDERSTANDING OF PRINCIPLES), (B) CASE-STUDY ORIENTED (LEARNING AND DEVELOPMENT OF THE CHILD AS A UNIQUE INDIVIDUAL), AND (C) LEARNER-ORIENTED (FREEDOM OF EXPRESSION AND SELF-SELECTED LEARNING, AIMED AT BETTER SELF-UNDERSTANDING BY THE STUDENTS). (2) THE INTERVENING VARIABLE CONSISTS OF TEACHER ATTITUDES (TOWARD THE TWO COLLEGE COURSES AND TOWARD THEIR ELEMENTARY SCHOOL PUPILS), VALUES, AND SELF-PERCEPTIONS, STUDIED THROUGH INTERVIEWS AND QUESTIONNAIRES, AND ALSO THE COMMUNICATION BEHAVIOR OF THE TEACHER IN THE CLASSROOM (DURING PRACTICE AND FULL-TIME TEACHING), ANALYZED IN 14 CATEGORIES SIMILAR TO FLANDERS INTERACTION ANALYSIS SYSTEM. (3) THE DEPENDENT VARIABLE CONSISTS OF THE WAYS IN WHICH THE CHILDREN PERCEIVED THEMSELVES AND THE INTERPERSONAL CLASSROOM ENVIRONMENT, AS MEASURED BY STUDENT RATINGS OF THE BEHAVIOR OF THEIR TEACHERS, THEIR PEERS AND THEMSELVES. (LC)

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DESIGN AND INSTRUMENTATION

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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December 1963

THE WISCONSIN TEACHER EDUCATION RESEARCH PROJECT: DESIGN AND INSTRUMENTATION

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Department of Education
The University of Wisconsin
December, 1963

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PREFACE

This monograph is designed to provide a comprehensive description of the general design and of the instruments used in the Wisconsin Teacher Education Research Project. It provides an immediate reference for our staff as they analyze data and prepare research reports. It is hoped that this monograph will be of value to other researchers interested in detailed descriptions of instruments which have been developed as a part of this project. It will not always be feasible in journal articles to discuss fully the development of instruments and thus it is anticipated that frequent reference to this monograph will be made.

The staff of the Teacher Education Research Project recognizes the preliminary nature of this five-year investigation. Two aspects of our work remain to be explored. First, there is the exploration of many questions which arise from the tentative findings of this research. Second, there is the utilization of instruments and techniques developed thus far in the implementation of tentative findings for both in-service education and the University of Wisconsin pre-service teacher education programs. Efforts are currently under way to develop the resources and the state-wide cooperation among various agencies needed to facilitate the follow-up activities.

The detail in which instruments are described in this report depends upon the extent to which the instrument or its use is unique to this particular project. If the instrument has been adequately described in the literature, our report is limited to describing the manner in which it has been used with our population. In those instances in which we have revised or adapted an instrument originally developed by others we refer the reader to the report of the original research and describe the manner in which the instrument was revised. The instruments which were developed specifically for use in this research are described in detail, indicating (1) the rationale for the development and use of the instrument, (2) the manner in which the instrument was used with our population, and (3) the specific nature of the instrument.*

It is appropriate at this time to identify some of the individuals who have contributed to the success of this project. Of primary importance are the three members of the Executive Committee. Dr. John Rothney, Dr. Carl Rogers, and the late Dr. Virgil Herrick submitted the original proposal to the National Institute of Mental Health and contributed much of their wisdom, interest, and time during the first four years. Dr. John Withall served as Director of the project in its first three years from 1959 to 1962 prior to his becoming the University of Wisconsin representative with the Peace Corps in the Ivory Coast, Africa. The system of categorizing teacher communication utilized in the study was suggested by Withall's Social-

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*All instruments originating with or substantially revised by the project are reproduced in the Appendices.

Emotional Climate Scale(24). Dr. John Newell of Tufts University and Dr. W. W. Lewis of Peabody College for Teachers were project associates during the first years of the study. Currently, the Coordinating Committee for the project is composed of M. Vere DeVault, director of the project; Dan Andersen and Frank B. May, Assistant Professors of Education; Patricia Cautley, Project Associate; Dorothy Sawin, Project Associate, the only person who has been associated with the project from the beginning; and Michael Bohleber, who has served as the chief data processor. Members of the Coordinating Committee have assumed a major responsibility for the preparation of this monograph. We are particularly grateful to Dan Andersen for his service as general editor. Many graduate assistants have contributed significantly to the project at various stages of its development. A major portion of the assistants' time has been devoted to training sessions, categorizing communication behavior of teachers in classrooms and on tape, and collecting data through interviews and various testing procedures. Among those who have contributed in this manner are Brian Heath, Terry CoBabe, Susan Reiter, Barbara Moeley, Don Miller, Ken Kosier, Beldin Hare, Stephen Mann and Brenda Pfaehler. Herbert Wenger and Donroy Hafner have acted as liaison with the public schools in which our subjects have served as students teachers or as beginning teachers. Richard Cook assisted with the analysis of data during the summer of 1962. Dr. John Antes, now at Oberlin College, served as an assistant on our project during which time his own dissertation was developed and completed (1).

Members of our project team are indebted to Dr. Julian Stanley and his students in the Laboratory of Experimental Design for the many hours of valuable assistance they have provided. Those who have given most generously of their time include Les McLean, Gene Glass, Dave Wiley, and Bob Remstad.

Certainly our warmest thanks go to our subjects who have given generously and unselfishly of their time both as undergraduates and as beginning teachers. We are very much indebted to them and also to their administrators and co-workers who have been most cooperative. Mr. Anthony Farina, a Madison principal, joined our staff during the summer of 1963 and analyzed some of the interview data particularly relevant to the pre-service training program in the public schools.

Frank May and Stephen Mann were of particular assistance in the final stage of manuscript editing and in achieving continuity throughout the monograph.

Finally, our thanks go to Miss Nadine Walsten, for her tireless effort in managing the "little details" so necessary in this type of venture; Mrs. Diane Davis for her excellent work in typing the final manuscript; and to our secretary and administrative assistant, Miss Elizabeth Klein, for the quiet, cheerful and efficient manner in which she facilitates every endeavor.

M. Vere DeVault
Director

CHAPTER I

DESIGN OF THE STUDY

Background of the Study

The Wisconsin Teacher Education Research Project is one of four projects, supported since 1958 by the National Institute of Mental Health, that is studying the influence of teacher education programs on the professional development of teachers.* The project is an expression of the desire on the part of the University of Wisconsin School of Education staff to investigate and improve its teacher education program. The study relies heavily on the fact that the University, being the major educational institution in the state, has maintained over the years a close working relationship with the school systems of many urban and rural communities. Throughout the state of Wisconsin over 60 school systems are now cooperating with the University in programs of teacher preparation and educational research.

The locus of the Wisconsin study is the elementary teacher education program. Notwithstanding an interest in all levels of the teacher education program, it soon became evident to the project staff that the logistics of working with the various secondary education programs was too great to make their inclusion feasible. The undergraduate elementary program allowed greater control of the academic activities which the students experience.

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*The other three projects are located at the Bank Street College of Education in New York City, San Francisco State College, and the University of Texas. The four studies are independent of each other in objectives, design, and methodology.

Design of the Study

The purpose of this study was to investigate the effects of different instructional approaches upon college students preparing to be elementary school teachers. Although the major concern was with the mental health of the pupils they would ultimately teach, two related questions were asked which influenced the design of the research. These questions were: (1) What is the influence of different instructional approaches in a teacher-training program upon the attitudes, perceptions and behavior of student teachers? and (2) What aspects of teacher behavior and perceptions, if any, have a measurable influence upon mental health in the classroom?

From its very inception, the research was recognized and explicitly defined as an exploratory-descriptive task.*

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*Selltiz, Jahoda, Deutsch and Cook (1961) define exploratory studies as those whose purpose is "...to gain familiarity with a phenomenon or to achieve new insights into it, often to formulate a more precise research problem or to develop hypotheses; and they define descriptive studies as those whose purpose is "to portray accurately the characteristics of a particular individual, situation, or group (with or without specific initial hypotheses about the nature of these characteristics);...to determine the frequency with which something occurs or with which it is associated with something else (usually, but not always, with a specific initial hypothesis)..."

This led to the further recognition that the original design of the research would be limited necessarily to a skeletal one, with more detailed design to evolve as the research progressed.

The broad design delineates the investigation of three sets of variables and their interrelationships. The first variable, different instructional approaches, is considered an independent variable; the attitudes, perceptions and behavior of the pupil-subjects in the classroom are considered to be the dependent variable; and the intervening variable is conceptualized as the behavior and source characteristics (attitudes and perceptions) of the teacher-subjects, since any effects of the instruction at the University level would have to be transmitted through them to the pupils in their classrooms and would presumably be affected both by their underlying attitudes and their behavior.

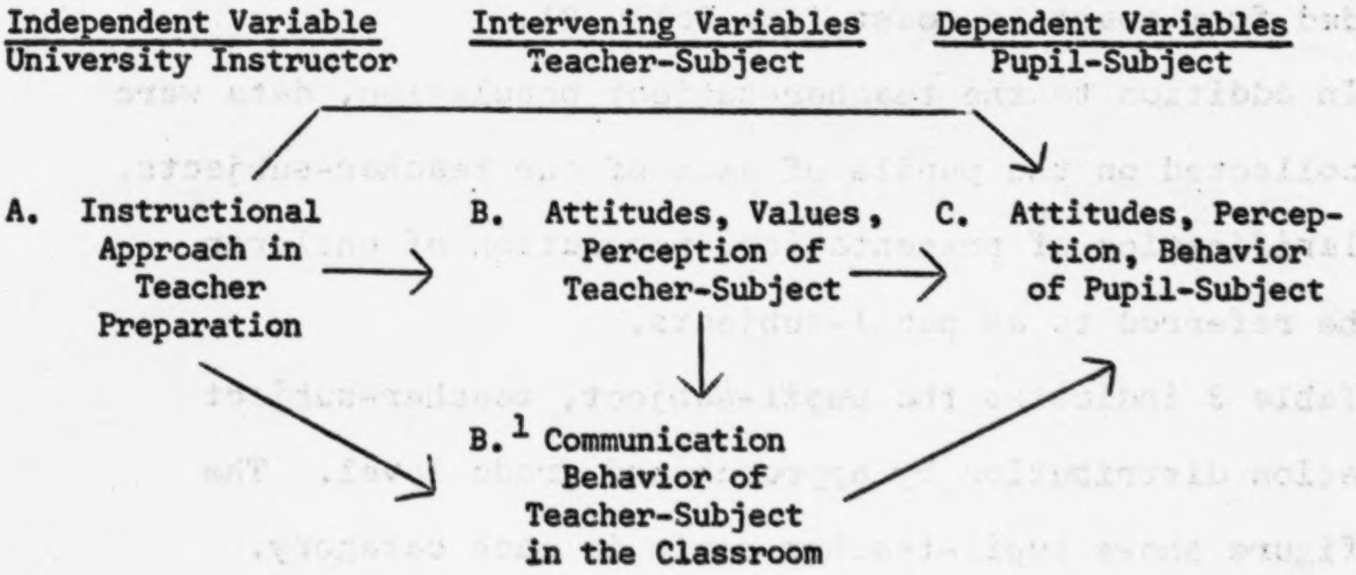
The first, or independent, variable is an experimental variable, which, it should be noted, further characterizes the study as quasi-experimental: three different instructional approaches were employed in two required courses in the elementary teacher education program at the University of Wisconsin--Education 73, "The Child: His Nature and Needs," and Education 75, "The Nature and Direction of Learning." The nature of these three instructional approaches is described in Chapter II. Suffice it to indicate here that Approach I, the "concept-oriented" approach, focused on the development and understanding of principles and concepts derived from the subject matter of Education 73 and Education 75. Approach II, the "case-study-oriented" approach, handled the subject matter of Education 73 and Education 75 from the point of view of its relationship to and impact on the learning and development of the child as a unique individual; this approach emphasized the use of case studies of children. Approach III, the "learner-oriented" approach, characterized by freedom of expression and self-selected learning, aimed at developing better self-understanding on the part of the students enrolled in Education 73 and Education 75. These instructional approaches have been studied primarily in two ways: (1) by analysis of the communication pattern of the instructor during the class sessions, and (2) by analysis of questionnaires from the students indicating their attitudes toward various aspects of the courses.

The teacher-subjects whose behavior, perceptions and attitudes comprise the intervening variables have been studied as they progressed from students in the University to full-time teachers in elementary classrooms. Their attitudes, values, and perceptions have been recorded over this period through interviews and questionnaires in order to obtain some understanding of the kinds of individuals they were when they began their training, how they changed during this period, and whether these changes were related to the different instructional approaches which they experienced in Education 73 and Eduation 75.

In thinking of these subjects as potential transmitters of any influence experienced at the University level, it was clear that we also needed to study in some systematic way their behavior in the classroom, both during their practice teaching and full-time teaching, since only through their interaction with their pupils would they transmit any effects. Although it is possible to observe and study behavior in many different ways, the communication behavior of the teacher was selected as representing a major part of the significant interaction of teachers with their pupils.

In studying the dependent variable--the attitudes, perceptions, and behavior of the pupil-subjects in the elementary classroom--we have selected two aspects of the individual's functioning. One is the way in which the individual sees himself, and can be defined operationally in terms of his self-concept and his ideal-self. The other is the way in which the individual perceives the interpersonal classroom environment, measured by the child's perceptions of his peers, his teacher, and his learning experiences.

This overall design is summarized in the following diagram:


Independent Variable
University Instructor
Intervening Variables
Teacher-Subject
Dependent Variables
Pupil-Subject
A. Instructional Approach in Teacher Preparation
B. Attitudes, Values, Perception of Teacher-Subject
C. Attitudes, Perception, Behavior of Pupil-Subject
B.¹ Communication Behavior of Teacher-Subject in the Classroom

Population of the Study

The research subjects for this study consisted of those individuals enrolled in the Education 73 - Education 75 sequence in the Fall-Spring semesters, 1960, and Fall-Spring semesters, 1961. Those students entering the program in 1960 comprised Wave I and those entering in 1961 comprised Wave II. The subjects were randomly assigned to one of three Education 73 sections, which had as its main concern the study of child growth and development. They maintained the same grouping for Education 75, where the emphasis was on human learning.

With the exception of two male students, one in Wave I, approach I, and one in Wave II, approach I, the population was female. The population totals over the three years, as shown in Table 1, give an indication of the attrition rate of subjects of the study.

The teacher-subject population was concentrated in and around Madison during their undergraduate and student training experience. Upon graduation and employment, the population extended from coast to coast (see Table 2).

In addition to the teacher-subject population, data were also collected on the pupils of each of our teacher-subjects. For clarification of presentation, population of children will be referred to as pupil-subjects.

Table 3 indicates the pupil-subject, teacher-subject population distribution by approach and grade level. The dual figure shows pupil-teacher ratio in each category.

TABLE 1

DISTRIBUTION AND ATTRITION BY SEQUENCE AND APPROACH OF TEACHER-SUBJECTS, WAVE I

Sequence	Approach			Totals
	I	II	III	
Juniors (1960-61)	19	22	20	61
Seniors (1961-62)	16	18	17	51
Teachers (1962-63)	14	11	10	35

TABLE 2

DISTRIBUTION BY AREA AND APPROACH OF FULL-TIME TEACHER-SUBJECTS, WAVE I

Area	Approach			Totals
	I	II	III	
Madison, Wisconsin	9	2	4	15
Wisconsin (Outside Madison)	2	6	3	11
Minnesota	1			1
Illinois	1			1
Ohio			2	2
Colorado		2		2
California	1	1	1	3
Totals	14	11	10	35

TABLE 3

DISTRIBUTION BY APPROACH AND GRADE LEVEL OF PUPIL-SUBJECTS AND TEACHER-SUBJECTS, WAVE I

Grade	Approach			Totals
	I	II	III	
1	----	----	32/3	32/3
2	35/2*	15/1	51/3	101/6
1 & 2	27/2	----	----	27/2
3	41/2	37/2	15/1	93/5
4	121/5	46/2	43/2	210/9
5	40/2	63/3	----	103/5
6	24/1	59/2	20/1	103/4
5 & 6	----	23/1	----	23/1
Totals	288/14	243/11	161/10	692/35

*pupil/teacher totals

Scheme for Data Collection

The data collection may be described in three phases: (1) Junior Sequence--Education73 - Education 75, and Education 31, (2) Senior Sequence--Education 41, and (3) First year Full-Time Teaching. Table 4 gives a chronological breakdown of the schedule for data collection.

In Education 73 and Education 75, the regular class sessions (50 minute sessions) of each of the three instructors were routinely tape recorded during the two semesters. Six times

TABLE 4

SCHEME FOR DATA COLLECTION

Instruments	Data Collection Period	
Junior Sequence (Ed. 73-75 and Ed. 31a-31b)	Pre Sept.-Oct.	Post May-June
1. Perception of self and others--		
Teacher Report: "Our Class"	x	x
Teacher Report: Cartoon Situations Test	x	x
Teacher Report: Semantic Differentials	x	x
Teacher Report: Structured Interviews	x	x
2. Communication pattern--		
Taped Observation (Ed. 73-75 instructor)	(every class session)	
"Live" Observation (Teacher-subject in 31a-31b)	x	x

Senior Sequence (Ed. 41)	Pre Sept. or Feb.	Post Jan. or May
1. Perception of self and others--		
Teacher Report: Semantic Differential	x	x
Teacher Report: Structured Interviews	x	x
2. Communication pattern--		
Taped Observation (teacher-subject)	x	x

First Year Teaching	Pre Sept. or Oct.	Middle Jan. or Feb.	Post May or June
Teacher's Battery			
1. Perception of self and others--			
Teacher Report: Semantic Differential	x	x	x
Teacher Report: Structured Interviews	x	x	x
Teacher Report: Sixteen Personality Factors	x	x	x
Teacher Report: Teacher Communication Scale (Actual-Ideal)	x	x	x

TABLE 4--Continued

First Year Teaching	Pre Sept. or Oct.	Middle Jan. or Feb.	Post May or June
Teacher Report: Children's Communication Scale	x	x	x
Teacher Report: Children's Behavior Characteristics	x	x	x
Teacher Report: Children's Personality Factors	x	x	x
2. Communication pattern			
Taped Observation (teacher-subject)	x	x	x
Children's Battery			
1. Perception of self and others			
Child Report: Teacher Communication Scale (Actual-Ideal)	x	x	x
Child Report: Peer Communication Scale	x	x	x
Child Report: Actual-Ideal Behavior Scale	x	x	x
Child Report: Peer Behavior Characteristics Scale	x	x	
Child Report: Children's Personality Questionnaire Early School Personality Questionnaire	x	x	x
Child Report: School Attitude Scale	x	x	x
Child Report: Peer Choice Rating Scale	x	x	x

during the year, the three instructors were observed and their communication categorized by trained observers, using the Fourteen Category Observation Scale (see pages 71 to 74). As part of their sequence of courses, Elementary Education majors are enrolled in their junior year in Education 31a (taken concurrently with Education 75). Education 31a-b is designed to provide curricular instruction in Social Studies, Reading, Arithmetic, Language Arts, and Science. In addition to the campus meetings, the students also spend two, one-half day periods per week in a public elementary classroom as a teacher-participant. Once during each semester, while working with children in the classroom, the teacher-subjects were observed and their communication categorized by trained observers using the Fourteen Category Observation Scale. In addition to the observation of communication behavior, pre and post measures were made on the teacher-subjects with respect to their perceptions and attitudes toward self and others during the Junior Sequence.

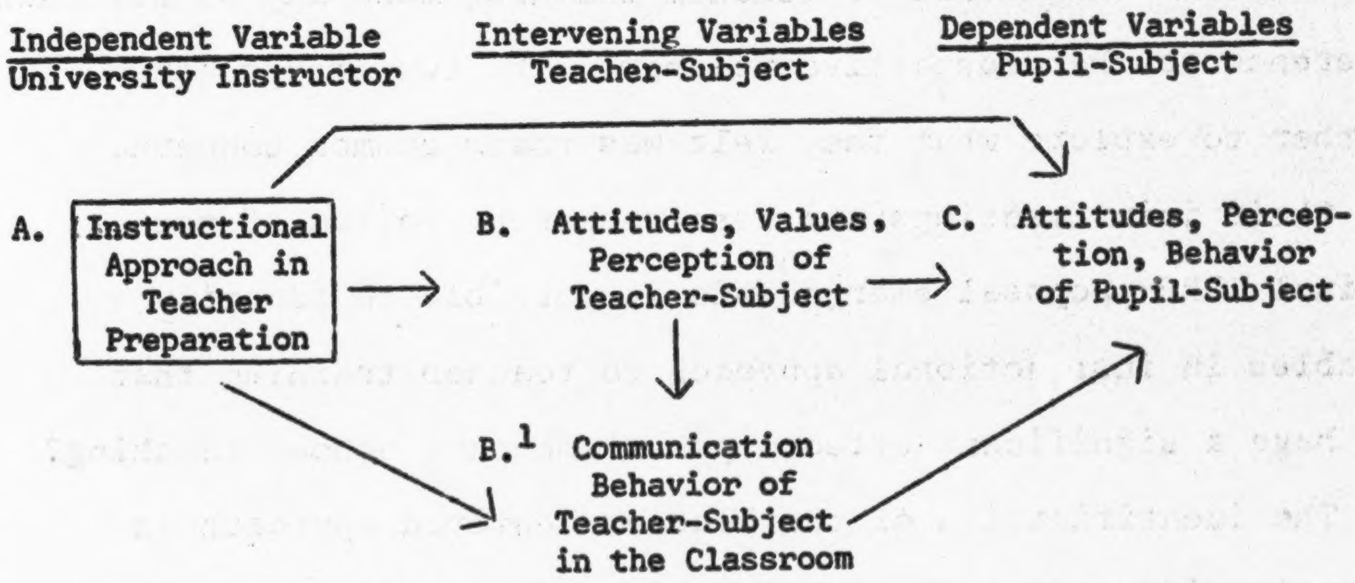
In Education 41, the course taken during the senior year which constitutes the student teaching requirement of the professional sequence, the perception of self and others was again measured by use of the same instruments employed in the Junior Sequence. Two recordings, one early and one late in the semester, of the communication behavior of each teacher-subject were made and analyzed.

In the full-time teaching experience, the data collected about the teacher during three visits to the classroom in October, January and May, consisted of a written questionnaire with items relating to his perceptions of himself and of the pupils with whom he was working, an open-end questionnaire which dealt with his general attitudes, and three tape recorded observations of his communication behavior. The children's battery consisted of measures of the children's perceptions of themselves, their peers, and their teacher, as well as achievement measures and attitudes towards school.

CHAPTER II

THE THREE INSTRUCTIONAL APPROACHES

Rationale for the Instructional Approaches


Independent Variable
University Instructor
Intervening Variables
Teacher-Subject
Dependent Variables
Pupil-Subject
A.
Instructional Approach in Teacher Preparation
B.
Attitudes, Values, Perception of Teacher-Subject
C.
Attitudes, Perception, Behavior of Pupil-Subject
B.1
Communication Behavior of Teacher-Subject in the Classroom

The original Teacher Education Research Project proposal evolved from questions emerging in two instructional groups in the Education Department at the University of Wisconsin. One group was a learner-centered seminar. In this group the instructor chose to place emphasis on the creation of a classroom climate in which learners would feel free to express themselves. The pace was set by the class rather than by the instructor; and the direction and the goals of the class were keyed to the interests and felt needs of the individual in the class. Members of the class recognized that this procedure was at variance with the traditional instructional approach, and felt themselves significantly affected by it. This led the seminar finally to discuss the kind of learning they were experiencing, and to ask what effect such learning might have on prospective teachers.

The other group, meeting over the same period of time, asked whether the method of teacher training made any significant difference to the prospective teacher. The two groups came together to explore what they felt was their common concern. From their joint meetings the core research problem of the original TERP proposal emerged--is it possible to identify variables in instructional approach to teacher training that will have a significant effect upon elementary school teaching?

The identification of the learner-centered approach as extremely different from the traditional approach presented both the opportunity and the incentive to explore this problem. However, these were not the only approaches used by instructors in the Department of Education at the University of Wisconsin at the time.

Because the outstanding feature of the learner-centered approach is its insistence that the social-emotional growth of the learner is at least as important as his intellectual growth--indeed, that the two must proceed hand-in-hand--it was believed that the subject matter in which the instructional approach was to be treated as an experimental variable should deal with just this particular area, and the courses in educational psychology which treat human growth and development were selected. Accordingly, student-teachers who were to be the subjects of the study were assigned at random to the educational psychology courses taught by three instructors who were most representative of the three approaches.

The theoretical differences between the approaches are outlined below. The reader should keep in mind that these descriptions are of the approaches as they are ideally used and that the sketches do not necessarily describe what took place in the experimental situation.

Note on Instructional Approach No. 1*

The primary intent of the first instructional method was to provide the teacher-subjects with broadly applicable methods and concepts. Theoretical rationale for this approach to human behavior is provided by writers in several of the social sciences: Dewey in education; Kelly in psychology; Hayakawa in general semantics; and Rapoport in philosophy of science, to name only a few. In varying contexts and at differing levels of abstraction all of these writers have articulated a need for a way of dealing with everyday human problems that approximates the method used in scientific investigation. The method they suggest is one of developing concepts about human behavior which have their origins in concrete human experience and which have predictive utility for similar experiences in the future. The content of the course therefore emphasized a procedure for construing meaning to behavior by developing (1) concepts, elaborating concepts into hypotheses, verifying hypotheses, etc., regardless of the material to which the concepts have relevance; and (2) the experiences around which the concepts are built, taking the phenomena associated with mental health in the classroom as raw data for concept formation. In this way, it was hoped that the teacher-subjects would have the opportunity to develop some understanding of an approach to generalizing about human behavior as well as familiarity with some of the existing popular generalizations about human behavior.

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*The material describing these three approaches is adapted from Newell, John M., Lewis, Wilbert W., and Withall, John, Mental Health-Teacher Education Research Project Research Outline, Madison, 1960. (Mimeographed.)

In comparison with the other two methods of instruction used in the study, the concept-building is farthest toward the cognitive end of the cognitive-affective continuum. It is designed mainly to give orientation toward accuracy in thinking and talking about human behavior, with relatively little emphasis on the teacher-subject's idiosyncratic perceptions of his relationships with particular children in his classroom. This does not deny the possibility of making use of personal experiences or classroom incidents as examples of concepts being developed, but the primary focus is on the concept-building process rather than with the persons engaged in the process. It is the intent of the instructor to keep emotional involvement of the teacher-subjects at a relatively low level by orienting concepts to "people-in-general." In comparison with the other two instructional methods, the concept-building approach includes extensive control by the instructor and little learner self-determination. Although accomodation to teacher-subject interests are made in reference to some of the specific case materials discussed, responsibility for procedures to be used, pacing of the learning process, and evaluation of the learners are centered in the instructor.

The teacher-subjects were introduced to methodological concepts such as the abstraction of meaning from experience, the relationship of symbols to events, operational definitions, validation of hypotheses, etc., through reading and discussing popular expositions of general semantics and philosophy of science. As they began to show some comprehension of the methodological concepts, the teacher-subjects were introduced to concepts and experiences relevant to a psychological study of behavior. The content of the course was the presentation and discussion of the developmental stages of the child in the areas of intellectual, physical, social and emotional growth with special emphasis on the way in which the child learns. End-of-course evaluation, in addition to any experimental instruments used for all three methods, consisted of an essay examination dealing with the content of the course.

Note on Instructional Approach No. 2

In Approach No. 2, the orientation of the course is towards building up an understanding of what makes children grow the way they do and "what makes them tick." The instructor makes it clear to the teacher-subjects that this understanding is developed primarily through an intensive study and analysis by each teacher-subject of the overall development and present status of a given child. Class discussion, presentation to the class of a sample case study as a model, collection of anecdotal records for the case study, observation of children in peer group situations in and outside the classroom as well as in the family setting if feasible are supplemented by text and film resources and individual conferences with teachers as needed.

The in-service problems and activities of each teacher-subject served as the context of the explorations, study and discussion regarding how children grow and develop and how that process affects the teaching-learning process.

Besides highlighting the developmental patterns or stages that are identifiable in human growth, the individual variations (physical, emotional, and intellectual) of children are brought out. The uniqueness of each individual's developmental pattern is underlined. The influence of the primary group, of cultural and socio-economic differences, of family structure, sibling relationships and the peer group on each child's progress and growth are examined. The teacher-subject is helped and encouraged to assess the significance of his own personal and professional values for his teaching effectiveness with an understanding of the youngsters in his classroom.

The patterns and principles governing human growth and development, procedures for working up a case study, and ways of using this information to facilitate the pupil's learning and to help him more adequately in his growth and achievement.

are presented as the class and the instructor deem it necessary and desirable.

Note on Instructional Approach No. 3

The third instructional approach has been labeled the "learner-centered" approach. It may be described briefly as arising out of a client-centered psychotherapeutic philosophy or orientation although its methods and procedures do not always parallel this psychotherapeutic orientation. One way of indicating the difference between this instructional approach and psychotherapy is to distinguish between the terms "therapeutic" and "therapy." The third instructional approach may be properly termed therapeutic in that its focus is on the teacher-learner and his individual needs, ideals and feelings. This approach is not "therapy" insofar as this term implies a focus on the personal problems of the teacher-learners as opposed to focusing on teacher-learners' feelings and personal reactions to individual professional problems which arise in the classroom. The focus of the third instructional approach is on professional problems viewed from the vantage point of the teacher-learner.

The teaching method used to implement the third instructional approach is group discussion although this methodology does not differentiate this instructional approach from the other two which also may use group discussion techniques. The term "group discussion," as used here, refers to the procedure of encouraging the group members to take the initiative in determining what is to be discussed by the class. That is, the locus of responsibility for class content lies primarily with the teacher-learners rather than with the instructor. The instructor is primarily concerned with how each teacher-learner feels about and perceives the topic under discussion. Within this frame of reference, the instructor serves as a resource person to provide additional information or references for a given problem, as a source of problem-structuring statements to restate or clarify the topic under discussion, and as a participating group member offering his own ideas and feelings about a topic as it seems appropriate. The instructor sets certain broad operating limits early in the class meetings. Since the focus of this instructional method is on the problems of the group members, the instructor indicates that the group has gotten together to work on common as well as individual problems which arise in the classroom. The instructor also suggests that one way of approaching these problems is for each group member to discuss and share situations that are of particular concern to him. The rationale for these structuring statements is to focus attention of the professional-problem-solving aspect of this instructional approach.

Since the focus of the third instructional approach is on problems initiated by the group members, the goals and objectives of this approach must be considered from the point of view of both the instructor and the group members. The objective of the instructor is to provide a climate within which common ideas and problems can be discussed, shared and examined. The goal from the instructor's point of view is to permit teacher-learners to become better aware of how their own attitudes and feelings contribute to and affect their classroom efforts. The objectives of this approach are largely determined by the group members. They may choose to set forth a series of problem areas they wish to discuss and even formalize this structure by means of an outline. The group may choose to let the objectives and goals of the meetings remain in a state of flux and to evolve constantly as the situation dictates.

One measure of the objectives and goals for the group members may be provided by an assessment instrument. They could be asked to indicate what they anticipated getting out of the course, what they actually experienced, and how they feel about this experience in terms of its value in their classroom work. A second assessment might include a self-evaluation as a teacher before and after the instructional experience. A more formalized content-type examination might be given to evaluate their understanding of certain substantive materials which are appropriate to the course.

The third instructional approach may be differentiated from the other two in terms of several major areas. The first is the amount or degree of personal involvement by the teacher-learner in what is being discussed. Since the topics under consideration arise primarily from the needs and concerns of the teacher-learners, the group members are considered to be potentially more personally involved with the subject matter than would be the case for the other two approaches. The least that can be said is that one member, the one who introduced the topic, is deeply and personally involved as it relates directly to his teaching and work in the classroom.

The second major area deals with the kinds of generalizations or conclusions which might result from this type of instructional approach. The generalizations or conclusions which the group may draw will be personal and individual in nature. It is hoped that each group member will arrive at a better understanding of how he feels about himself, his class, and what attitudes and feelings are of importance to him as a teacher and a person.

Documentation

The three approaches have been described. However there remains the question of whether the instructors who represented the approaches differed from one another in the ways implied by the descriptions given.

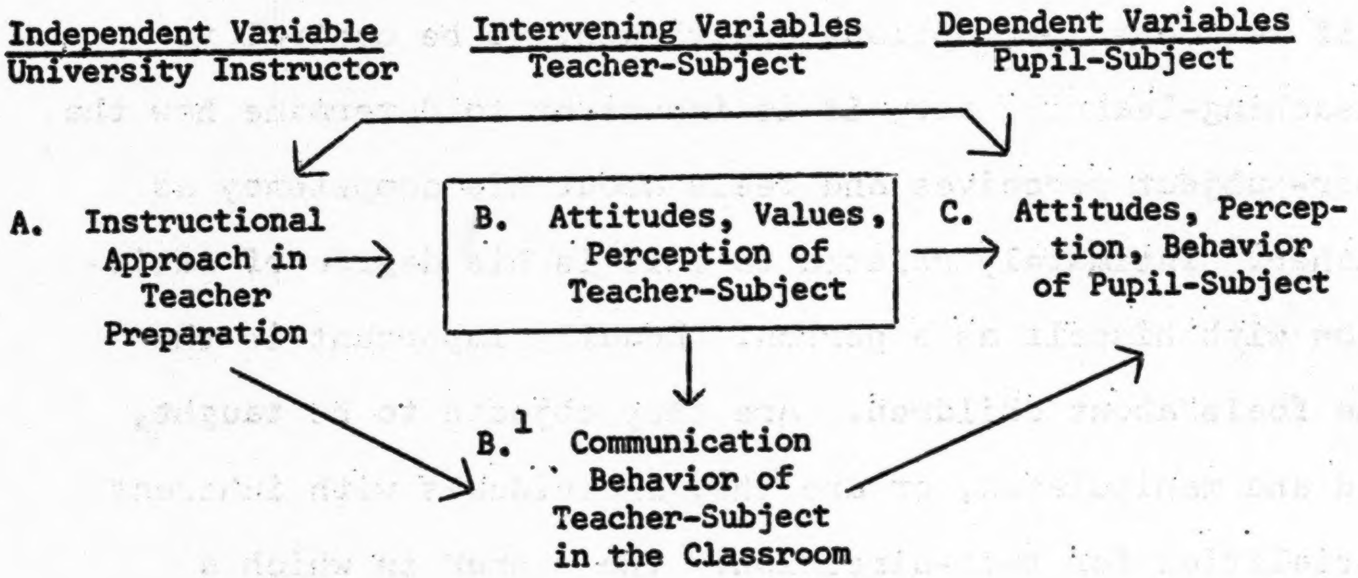
Three methods were employed to determine the answer to this question: (1) the instructors were asked to discuss their approaches before formal and informal groups, in which verbatum notes were taken; (2) an open-ended interview was held with each instructor and tape recorded for later analysis; and (3) trained observers recorded samples of the instructors' lessons, using the communication category system.

Each of the above techniques provided data which substantially document the differences between the instructors in the expected ways. A review of the instructors' comments upon their classroom methods clearly revealed that their emphases corresponded to those described above. Withall(24) examined the observational data from the classroom sessions of the instructors and reported finding significant differences between the instructors in connection with the communication model, differences which were theoretically expected and in some cases hypothesized.

CHAPTER III

TEACHERS' ATTITUDES, VALUES, AND PERCEPTIONS

Rationale for Teacher Perception Instruments


Independent Variable
University Instructor
Intervening Variables
Teacher-Subject
Dependent Variables
Pupil-Subject
A. Instructional Approach in Teacher Preparation
B. Attitudes, Values, Perception of Teacher-Subject
C. Attitudes, Perception, Behavior of Pupil-Subject
B.1 Communication Behavior of Teacher-Subject in the Classroom

This section is concerned with the selection of appropriate measures in assessing the attitudes, values, and perceptions of the teacher-subjects. The nature and extent of the project necessitated the definition of certain requirements which our measures would have to fulfill and encompass. Since one of the objectives was to determine what conditions at the university or college level contributed eventually to the mental health and well-being of children in the classroom, the instruments chosen would first of all necessarily be related to adjustment or social-emotional factors. Secondly, they would have to be compatible with the construct of communication.

Third, as this research was intended to be exploratory in nature, the instruments chosen would need to be as complete and all-inclusive as possible in a regular educational setting, in order to assess as many aspects of a subject's universe as possible. The fourth consideration was the longitudinal design of the project which required that the measures be sensitive to change.

If teachers' perceptions are thought to be central to the teaching-learning act, it is important to determine how the teacher-subject perceives and feels about his competency as a teacher. Intimately related to this is his degree of satisfaction with himself as a person. Equally important is the way he feels about children. Are they objects to be taught, guided and manipulated, or are they individuals with inherent potentialities for self-direction? The manner in which a teacher perceives and feels about friends and contemporaries also seems relevant. How he regards significant figures such as parents, professors, teachers and principals also seems to have some bearing upon the kind of teacher he may become. The manner in which a teacher envisions the classroom teaching experience and the way in which he thinks he would act in certain specific situations is relevant. How the teacher thinks he communicates with the pupils in the classroom is pertinent. How he reacts to material things such as the school itself, the classroom, materials, books, and audio-visual aids is important.

The selection and devising of instrumentation to assess the teacher-subjects' perceptions in these areas had to take several considerations into account. The longitudinal design made it necessary to use measures which would be appropriate for the college instructor; for the subject as a college student, a student-teacher, and a full-time teacher; for the cooperating teacher; and finally, for the pupils of our teacher-subjects.* The final consideration was that the instruments should not be superficial but capable of providing information about the subject at various levels of self-awareness. It seemed important to collect external or objective information about the subject, and also perceptual, subjective data given by the subject. It was equally important to choose several different types of measures to assess the same variable in order to gain confidence in the validity of the findings.

It soon became obvious that it would be essential to choose from among all the aspects of the subject's perceptual field those which would yield the information most pertinent to our research. After some consideration the following areas were selected. The subject's perception of:

1. himself as a teacher;
2. himself as a person;
3. others in his environment (children, instructors, superiors, etc.) and,
4. the teaching experience.

An additional reason for diversity of measures was to

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*Rationale and description of the pupil-subject instrumentation will be found in Chapter V.

"tune in" at whatever psychological level the subject was able to communicate. The external, observational data, together with the internal, private data, which would include conscious perceptions, attitudes, values and perhaps unrecognized needs and motivations, would give us a more complete picture than either one or the other alone.

The following scheme indicates which of the teacher report measures were expected to afford data for each of the four perceptual areas:

Student Teaching	Full-Time Teaching
1. Self as a Teacher	
Teacher Report: Semantic Differentials	Teacher Report: Semantic Differentials
Teacher Report: Cartoon Situations Test	Teacher Report: Teacher Communication Scale
2. Self as a Person	
Teacher Report: Semantic Differentials	Teacher Report: Semantic Differentials
Teacher Report: Our Class	Teacher Report: Sixteen Personality Factors
Teacher Report: Structured Interviews	
3. Others	
Teacher Report: Semantic Differentials	Teacher Report: Semantic Differentials
Teacher Report: Cartoon Situations Test	Teacher Report: Children's Communication Scale
Teacher Report: Our Class	Teacher Report: Children's Behavior Characteristics Scale
Teacher Report: Structured Interviews	Teacher Report: Children's Personality Factors
	Teacher Report: Structured Interviews
4. The Teaching Experience	
Teacher Report: Cartoon Situations Test	Teacher Report: Structured Interviews
Teacher Report: Our Class	
Teacher Report: Structured Interviews	

Fig. 1.--Distribution of teacher-subject reports among the four perceptual areas

Instruments which approximated the ones administered to the pupils were added during the in-service period in order to investigate the construct of "shared space" between the teacher and the pupils [Teacher Reports: Children's Communication Scale, Children's Behavior Characteristics Scale, Children's Personality Factors, Teacher Communication Scale (Actual-Ideal)].* The Sixteen Personality Factors Questionnaire was included to discover in what ways, if any, a teacher's assessed personality was related to his communication behavior and perceptions of self and children.

Teacher reports about the children were administered during the full-time teaching period. These included information about children which paralleled the data provided by the Children's Reports. Therefore the Teacher Reports provided an additional referent for investigating the characteristics of children in a particular classroom. A description and analysis of each of these instruments will be presented in the following section.

Description and Analysis of Instruments

Teacher Report: Our Class

Description. The "Our Class" instrument was constructed to assess the teacher-subjects' feelings and attitudes about the educational psychology courses Education 73-75 which, through differential instruction, served as a major variable in this study.

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*See Chapter V.

Some of the possible results of exposure to different teaching approaches might be the development of different kinds of attitudes toward self, others, and the teaching process. Administered as a pre-post measure the instrument could give some indication of the changes in attitudes and feelings which took place in the teacher-subjects over the period of the school year.

The original form of the instrument consisted of sentence completion items taken from a test originated by Ruth Cunningham (9). In order to assess its validity the test was administered to children in four Madison public school classes. It appeared to be an inadequate measure of group feeling about the class, because it failed to reflect the observed classroom atmosphere. The test was revised several times and tried out on elementary school children again and also on college students in a pilot study. The form which evolved at this time asked students to describe their feelings toward various aspects of their class, and was composed of the following items:

1. The content of the course. . . .
2. The way the course is being taught. . . .
3. The teacher. . . .
4. Other persons in the class. . . .
5. The teacher's feelings about you. . . .
6. The feelings of others here about you. . . .
7. You, as a member of the class. . . .

The items centered around three areas: the course itself (items 1 and 2), the teacher (items 3 and 5), and others in the class (items 4 and 6). Item 7 was intended to give an indication of the student's perception of himself in the class group. Although it was included in the test, at a later date a decision was made not to include it in the final analysis.

The "Our Class" instrument was administered two weeks after the beginning of classes, thereby giving the subject an apportunity to form opinions and attitudes towards the class before the test. The Post test was administered two weeks before the classes ended.

Analysis. Since different instructors were used for Waves I and II it was decided to analyze the two waves as separate samples and to combine them at a later time if this seemed to be warranted. Within each wave the Our Class tests were divided into six groups according to the teaching approach and the time administered.

1. Approach I - pre
2. Approach I - post
3. Approach II - pre
4. Approach II - post
5. Approach III - pre
6. Approach III - post

Degree of satisfaction was the criterion for the evaluation of the two waves, which were analyzed as separate but comparable samples. In order to avoid a bias due to any one teaching approach an overall analysis of each wave was made. Tests from all six groups (three approaches pre and post) were combined randomly and were assigned a value in terms of a five point scale of degree of satisfaction, by judges who demonstrated a high reliability in making these ratings. The papers were distributed along the scale according to the following scheme:

1.	Extremely dissatisfied	10%
2.	Moderately dissatisfied	20%
3.	No commitment	40%
4.	Moderately satisfied	20%
5.	Extremely satisfied	10%

After all the papers were assigned to an interval, they were separated again into the six groups comprising the total wave. Frequencies for each interval in each group were found, yielding an overall satisfaction distribution for each group. These overall distributions were broken down into six-item distributions, showing the group's frequencies per cell on each of the six Our Class items.

This scoring method allowed for direct comparison of overall satisfaction distributions among the six groups, as well as comparisons across waves if a correction factor were used to compensate for unequal sample sizes. Thus pre and post groups within an approach may be compared across approaches, and approaches may be compared across waves. Comparisons were to be made in terms of similarity of distribution shapes.

The test papers from the six groups in Wave I were identified by numbers and randomly combined so that a judge would have no knowledge of either the approach or pre-post designation of the tests. In scoring each separate item, papers were read and tentatively assigned to one of the five cells (degree of satisfaction). In the second and final reading, papers were forced into the proper sized frequency for each interval. The 84 papers in Wave I were divided into five cells of the following frequencies: 8, 17, 34, 17, 8. The papers were separated into the original six groups (Approach I, pre-post; Approach II, pre-post; Approach III, pre-post) and a distribution of frequencies per cell on the item was constructed for each group. The papers were randomly recombined and the remaining items were scored and distributions were made following the same procedure. Then, within each group, frequencies on each of the five degree of satisfaction intervals on all items were combined, yielding an overall satisfaction distribution for each of the six groups.

Teacher Report: Cartoon Situations Test

Description. The Cartoon Situations Test used in this study was developed at Bank Street College of Education in New York City(22). The Cartoon Situations Test (CST) consists of seven cartoons depicting teachers, children and parents in a variety of situations. An example of the cartoon situation can be seen in Figure 2. Responses are written and involve general reactions to each cartoon. The seven catroons which comprise the present series were chosen to tap such qualities as the person's relation to authority, depth of feeling for child experience, tendency toward hostile, punitive responses, etc. The Cartoon Situations Test was included in the test battery

Description of Cartoon Item	Caption
Two little girls playing dolls. One child is handing a doll to the other.	"It's yours for keeps until I want it."

Fig. 2.--Sample item from the Cartoon Situations Test

of this study to sample certain personality characteristics of the subjects especially as these characteristics relate to the teaching profession. The CST was administered to all teacher-subjects twice--once at the beginning of the Education 73-75 experience and again at the conclusion of the course.

The authors of the CST have developed a scoring manual which permits an eight-dimension analysis of the responses to the cartoons. These dimensions include: (1) quality of expressive tone; (2) orientation to dilemma; (3) quality of emotional identification with characters; (4) perception of authority role; (5) quality and complexity of psychological thinking; (6) orientation to action; (7) modes of aggressive expression; (8) attitudes toward socialization process.

Inter-judge reliability of the order of 66 percent agreement is reported by the authors. Use of this instrument by two members of this research staff yielded 52 percent perfect agreement and a somewhat higher percentage for near perfect agreement.

Analysis. Two hypotheses were proposed in comparing the CST protocols of the subjects receiving the three experimental approaches:

1. Results of pretesting by the CST would show no significant differences among the three approaches.
2. The results of the CST post test would show significant differences among the three approaches. No hypotheses were formed as to the specific nature of these differences.

Teacher Report: Semantic Differentials

Description. A semantic differential is a psycholinguistic tool which can be used to measure changes in attitudes and perceptions as well as the meaning of various concepts and their relationships to each other. It is not a single set instrument, but rather a scheme for collecting certain types of information, which can be adapted to a wide range of specific research questions.

A semantic differential, as developed by Osgood (19), can be described as a grid consisting of an unspecified number of scales each of which represents a pair of bi-polar adjectives. The scale between each pair of adjectives is divided into seven steps (Figure 3). The subject is asked to evaluate some concept or person in terms of each pair of adjectives by placing a mark at the appropriate place on each scale. The middle step represents a neutral reaction, and the three spaces going from the middle toward each adjective represent the reactions "slightly like this," "quite like this," and "extremely like this." A measure is thus obtained of both the direction and the intensity of the subject's feeling for the person or concept in question with respect to each of the paired adjective scales. This makes it possible to compare different concepts for a single subject or for groups; different

Successful |___|___|___|___|___|___|___| Unsuccessful

Fig. 3.--Sample item from the Teacher Report: Semantic Differentials groups in relation to one or several concepts; or to assess change over a period of time for subjects, groups or concepts.

The semantic differential method was considered appropriate for collecting information about our teacher-subjects' changes in attitudes for the following reasons: it is easy to administer and to score; it is directly related to the communication model which comprises a principal construct of the study; it is highly graphic and can give a picture of a person's or a group's semantic space or "geography" at any given point in time.

Osgood(19) has determined by factor analysis the major dimensions along which meaningful processes vary and the bipolar adjectives which are representative of each dimension. For the purposes of this study five of these dimensions were used:

Evaluation
1. successful--unsuccessful
2. obscure--lucid
3. fair--unfair
4. uncritical--skeptical
5. naive--sophisticated

Power (Potency)
6. severe--lenient
7. serious--humorous

Activity
8. active--passive
9. skillful--inept
10. excitable--calm

Stability
11. rational--intuitive
12. eccentric--conventional
13. cautious--rash

Receptivity
14. sensitive--indifferent
15. aloof-sociable

These particular semantic differentials were developed to assess changes in the teacher-subjects' perceptions of themselves and others in their educational environment. These semantic differentials were administered five times during the three years; pre and post junior year, pre and post senior year, and once during the first year of full-time teaching. Table 5 indicates which concepts were used as referents at each administration.

TABLE 5

SEMANTIC DIFFERENTIALS SCHEDULE

Semantic Referents	Time of Data Collection		
	Jr. Year Pre-Post	Sr. Year Pre-Post	First-Year Teaching
Ed. 31 Instructor	X		
Ed. 73-75 Instructor	X	X	X
Cooperating Teacher As She Is	X	X	
Cooperating Teacher As I Would Like Her To Be	X	X	
Most Favored Teacher	X	X	
Least Favored Teacher	X	X	
Person I Am	X	X	X
Person I Would Like To Be	X	X	X
Teacher I Think I Am	X	X	X
Teacher I Would Like To Be	X	X	X
Myself As The Children See Me			X
Teacher The Children Would Like Me To Be			X

Nine referents were presented during the junior year to measure changes in the subjects' attitudes toward the Education 73-75 instructor, the instructor in the methods course, the cooperating teacher, liked versus disliked teacher, self and self-ideal, and self as a teacher. During the senior year nine referents again were presented. The referent of the methods course instructor was dropped and the teacher-ideal was added. The evaluation of the methods course teacher was not considered to be important at this time. Also, it was decided that it would be more appropriate to have a teacher--teacher-ideal discrepancy to measure the subject's evaluation of himself as a teacher than to compare his perception of himself as a teacher with the most-least favored teacher as originally planned.

Since the perceptions of the pupils were added to the body of data collected during the first year of full-time teaching, it was necessary to include "Myself as the Children See Me" and "Teacher the Children Would Like Me to Be" to assess the shared semantic space of the pupils and the teacher. The other referents were considered no longer pertinent at this stage of the study.

Teacher Report: Structured Interviews

Description. All the instruments so far discussed have provided what might be called "indirect" assessments of perception. The Our Class instrument was an unfinished sentence projective test designed to reveal the subject's perceptions of various aspects of the classroom including other members of the class, himself, and the instructor. The Cartoon Situations Test, a picture projective test, was intended to give information about children, teachers, parents, authority figures, the teaching experience and, indirectly, about the subject. The semantic differentials were used to obtain information on the systems of meanings of the subject's universe which were pertinent to the study.

It seemed important to include an instrument through which the subject could communicate perceptions about the teaching-learning interaction directly. The interview was chosen as the appropriate instrument.

Because of the specific nature of the information we wished to collect (perception of self as a teacher; self as a person; others; the teaching-learning experience) it was decided to use a structured interview. Because it seemed important to record certain perceptions at intervals during the students' development into a full-time teacher, it was decided to schedule interviews at the beginning and end of each of the three years with which the study is concerned for each wave. Thus interviews were held at the beginning of the junior year (Interview I) before the introduction of the experimental variable (the differentiated instructional approaches) and at the end of the junior year (Interview III*); at the beginning of the student teaching experience during the senior year (Interview IV) and at the end of the student teaching (Interview V); at the beginning of the first year of full-time teaching (Questionnaire VI), during the mid-term (Questionnaire VII), and at the end of the first year of full-time teaching (Interview VIII).

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*Interview II was administered in the middle of the junior year, but was omitted later for technical reasons.

Written questionnaires were substituted for the individually administered, tape recorded interviews at the beginning and middle of the first year of full-time teaching because of the difficulty in collecting the data. At this time our subjects were teaching in such widely separated areas as California and Massachusetts, as well as points in between, requiring the examiners to travel considerable distance to collect the data. For this reason, and primarily for the comfort and well-being of our subjects, it seemed imperative to make the data-collecting time as brief as possible. A questionnaire was thought to be less time-consuming for the subject than a "live" interview. However, the subject was offered the alternative of responding to the questions in the microphone of a tape recorder, and the machine and tape were furnished at his request. Several subjects chose to respond in this manner.

How, where, and by whom the interviews should be adminispered required considerable deliberation. Because of the personal nature of some of the questions, it was essential to assure the respondent of the privacy and confidentiality of his answers. Also, because the degree and accuracy of self-disclosure is definitely related to the kind of rapport that is established between the interviewer and the respondent, as has been substantiated by Jourard and others(16), it was decided to interview the subject in a small acoustically treated private room and to record the interview on tape. This would leave the interviewer free to give his undivided attention to the interviewee without having to record the responses. The subject could feel secure that he was not being overheard. He was given assurance that the contents of the tapes would remain confidential.

The interviewers were carefully chosen and trained. In order that the effect of the interviewer should be minimized as much as possible certain restrictions were agreed upon by the three interviewers:

1. To ask the questions exactly as worded.
2. To use only encouraging comments, and only one per question.
3. To reread a question if the subject inquired about the meaning of the question.
4. To permit the subject to read the question if further clarification was needed.
5. To encourage the subject to continue if a brief or unsatisfactory response was given by saying, "Can you tell me any more about...?"

For the first wave of subjects the same interviewer questioned all the subjects in a single approach. However, when it came time to interview the subjects in Wave II it was decided that each of the three interviewers should work with one-third of the subjects in each approach in order to cancel out as much as possible the effect of different interviewers.

The questions or items on the eight interviews and questionnaires were developed by the research staff. The criteria which influenced the development and selection of the questions were the following:

1. The content areas representing the subject's perceptual

universse
   a. Self as a teacher
   b. Self as a person
   c. Others
   d. The teaching-learning experience

2. The longitudinal nature of the project
   a. Pre-post measures at the beginning of each year
   b. Items which would be sensitive to change

3. The exploratory aspect of the project
   a. Items that would permit the subject to answer at various psychological levels
   b. Items that would reflect the breadth of the subject's experience and perceptions

4. Comfort of subject and accuracy of response
   a. Items which would not threaten subject
   b. Items that would be less apt to evoke defensive distortion

In addition to the above four major areas, four others--values; communication; the experimental variable; the Teacher Education Program at the University of Wisconsin--have been included for the following reasons. It was thought that the values a subject professes might be related to his teaching behavior. In any event they might shed light upon his perception of himself as a person. Since communication is the major construct of the project, several questions were included to assess the way in which a subject believes he would communicate. Although several other measures are presumed to assess the effect of the experimental variable, it seemed important to inquire directly from the subject how he felt about the manner in which his particular section of Education 73-75 was taught. Finally, one question was intended to tap how the subject felt in retrospect, about his four year educational experience. The questions which were selected for the interviews and questionnaires will be found in Appendix C. The breakdown as to how these questions were catalogued in the various dimensions can be noted from Tables 6 and 7.

TABLE 6

ASSIGNMENT OF INTERVIEW QUESTIONS TO THE MAJOR DIMENSIONS OF CONTENT

Interview (Questionnaire)	Self		Teaching-Learning Situation	
	Person	Teacher	Hypothetical	Experienced
I.	3,4,5	1,6,7	8,9,10,11,12	
III.	5,6	1,2	4,7,8,9	3
IV.		1,2,3,4,5	6,7,8	1,2
V.	10,11,12	1,2,6,7,8	13,16	1,3,4,5,14,15
VI.				1,2,3,4
VII.		1,2		3,4,5,6,7,8
VIII.	14	1,4,5,6,13		2,3,7,8,9,10,11,12

TABLE 7

ASSIGNMENT OF INTERVIEW QUESTIONS TO PERIPHERAL DIMENSIONS OF CONTENT

Interview (Questionnaire)	Values	Communication	Experimental Variable	Teacher Education Program
I.	2	13,14		
III.		10		
V.	9	17	18	
VII.				5
VIII.			15	

Analysis. At the end of the third year of the project just after Interview III had been recorded for all the subjects, a preliminary analysis of interviews I and III was made of two subjects who appeared to be different in personality and teaching style. Each of the four tapes for the two subjects was analyzed directly from the recorded tape according to a unit of time measurement. This exploratory analysis indicated that this method did discriminate effectively between the two subjects and confirmed the differences which had been hypothesized.

In another preliminary analysis of the taped interviews an attempt was made to delineate the concepts that the subjects used to describe their most-least liked teacher in order to determine whether any differences were apparent at the end of the junior year.

However, in view of the time-consuming nature of the task and because it was very difficult to identify the separate interview questions by listening to the tape, it was decided to transcribe the contents of all the recorded interviews to McBee Keysort Cards. Although this was a major undertaking it seemed defensible: it would then be possible to consider each question separately; there would be three copies of the data available as well as the tape itself; anonymity of the subjects would be assured; and the simplicity of the sorting method made the material readily accessible. One data resource afforded by listening to the tapes would no longer be available, however. Tonal qualities, hesitations and other affective indicators would not be apparent on the typescript. In order to retain as much of the idiosyncratic affective characteristics of the subject as possible, the transcribers were asked to record in parentheses any indicators of affective overtones that they could discern.

Now that typescripts are available for the series of eight interviews and questionnaires, various methods for analyzing the major content areas (Self as a teacher; Self as a person; Others; The teaching-learning experience) as well as the minor ones (Values; Communication; The experimental variable; The Teacher Education Program at the University of Wisconsin) have been explored.

One method is to evaluate the material related to the self-concept and teacher-concept on a continuum representing varying degrees of satisfaction. Another is "unit of meaning" analysis employing such dimensions as positive and negative affect, intensity, and content area. Still another is to consider certain questions in relation to a "sending-receiving" continuum.

Teacher Report: Sixteen Personality Factor Questionnaire

Description. Cattell's "Sixteen Personality Factor Questionnaire" was selected for use in assessing personality characteristics of teachers because (1) reliability and validity were deemed to be satisfactory, (2) factors alleged to be parallel were available for both the teacher-subjects and the pupil-subjects of this study, and (3) this questionnaire provides a comprehensive personality pattern with a minimum amount of testing time(6). Form A was administered to the teacher-subjects at the time of the final round of testing during their year of full-time teaching. Time required for the administration of the test is listed as 35-40 minutes for the 187 items. Machine scoring answer sheets were used. Teachers in most instances completed the questionnaires at the time testing was underway with their pupils. In a few instances teachers had not completed the battery of tests by the end of the pupil's testing period and in these cases the presonality questionnaires were returned to the project office by mail on the following day.

The sixteen first order factors included in the test are shown in Figure 4 with their technical and popular bi-polar descriptions.

Analysis. Factor scores were tabulated for machine analysis. Use of the computer for analysis has made possible the easy conversion of raw scores to stens or staves in the event such scores were to be used for a particular analysis. Also, corrections for sex and age differences in scores, recommended by Cattell in the Handbook for the Sixteen Personality Factor Questionnaire, are made as a subroutine in computer programs which compare groups involving sex and age differences.

Teacher Report: Teacher's Communication Scale (Actual-Ideal)

Description. The Teacher-Report: Teacher's Communication Scale, which consists of twelve items, was developed for the purpose of measuring teachers' perceptions of their verbal communication behavior on dimensions which correspond to categories

Factor A	Cyclothymia (Warm, Sociable)	Schizothymia (Aloof, Stiff)
Factor B	General Intelligence (Bright)	Mental Defect (Dull)
Factor C	Emotional Stability or Ego Strength (Mature, Calm)	Dissatisfied Emotionality (Emotional, Immature, Unstable)
Factor E	Dominance or Ascendance (Aggressive, Competitive)	Submission ("Milk-toast," Mild)
Factor F	Surgency (Enthusiastic, Happy-go-lucky)	Desurgency (Glum, Sober, Serious)
Factor G	Character or Super-Ego Strength (Conscientious, Persistent)	Lack of Rigid Internal Standards (Casual, Undependable)
Factor H	Parmia (Adventurous, "Thick-skinned")	Threctia (Shy, Timid)
Factor I	Premsia (Sensitive, Effeminate)	Harria (Tough, Realistic)
Factor L	Protension (Paranoid Tendency) (Suspecting, Jealous)	Relaxed Security (Accepting, Adaptable)
Factor M	Autia (Bohemian Introverted, Absent-minded)	Praxernia (Practical, Concerned with Facts)
Factor N	Shrewdness (Sophisticated, Polished)	Naivete (Simple, Unpretentious)
Factor O	Guilt Proneness (Timid, Insecure)	Confident Adequacy (Confident, Self-secure)
Factor Q1	Radicalism	Conservatism of Temperament
Factor Q2	Self-Sufficiency (Self-sufficient, Resourceful)	Group Dependency (Sociably Group Dependent)

Factor Q3	High Self-Sentiment Formation (Controlled, Exacting Will-power)	Poor Self-Sentiment Formation (Uncontrolled, Lax)
Factor Q4	High Ergic Tension (Tense, Excitable)	Low Ergic Tension (Phlegmatic, Composed)

Fig. 4.--First order factors from the Sixteen Personality Factor Questionnaire

found in the observational recording system (see pages 71 to 79). It will be recalled that there are fourteen basic categories defined as, for example, "gives information," "asks for information," and "gives directions."

There are two parts to the Teacher's Communication Scale instrument. In the first part, the teacher is asked to indicate how strongly he would like to possess the verbal communication pattern described. In the second part, the items are repeated and the teacher is asked to indicate how strongly he feels he possesses the verbal communication pattern described. In order to reduce the influence of the teachers' responses to the first part upon his responses to the second, the two parts are separated in the questionnaire booklet.

The format o the items remains identical except for the questions--Do I want to be like this? and Am I like this? (See sample items in Figure 5.)

Analysis. Responses to the items on the Teacher Report: Teacher's Communication Scale were coded for numerical analysis as 4, 3, 2, and 1, for YES, yes, no, NO, respectively. Discrepancy scores were derived from the differences between responses

			YES	yes	no	NO
3.	Some Teachers suggest different things so pupils can choose for themselves.	Am I like this?	☐	☐	☐	☐
3.	Some teachers suggest different things so pupils can choose for themselves.	Do I want to be like This?	☐	☐	☐	☐

Fig. 5.--Sample items from the Teacher Report: Teacher Communication Scale (Actual-Ideal)

to the questions, "Do I want to be like this?" and "Am I like this?" for each item.

Analysis consists of the treatment of two types of questions: (1) How do teachers' self-ratings compare to the ratings given them by their pupils?; and (2) What variables are associated with teachers' perceptions of their communication behavior and with their self-ideal discrepancy?

Congruence of the childrens' perceptions and the teachers' perceptions with respect to the teachers' communication is measured in terms of the agreement between the teachers' ratings on the TR: TCS (Actual) and the mean or modal response of the class to the corresponding item on the CR: TCS (Actual), Child Report: Teacher Communication Scale (Actual).* A teacher's perception of himself on an item is determined to be incongruent with his pupils' perceptions when his score is greater than one standard deviation in difference from the mean score for the class, and the teacher's total congruence score with respect to his communication is the number of items upon which his score falls within one standard deviation from the mean class score. Current analysis in this area is directed toward the discovery of the correlates of these congruence scores.

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*See Chapter V.

Teachers' self perceptions and self self-ideal discrepancy scores are being analyzed in connection with a number of other measures, such as instructional approach, observed communication behavior, and personality factor scores. Numerous questions are being asked, of which the following are examples: Do teachers who were taught by the different instructional approaches perceive their communication differently? Do they express ideal communication behaviors which differ according to instructional approach? Do their self-perceptions change during the course of their first year of teaching? How congruent are their self-perceptions with the ratings of a trained observer, and is such congruence related to other measures?

Teacher Report: Children's Communication Scale

Description. This instrument is an approximation of the communication categories employed in the analysis of the teacher communication pattern. The eight items are identical to the items in the Child Report: Peer Communication Scale and, though abridged, similar to the items in the Child Report: Teacher's Communcation Scale.

An original purpose of this study was to investigate the effect of the communication pattern of the teacher on the children. Response by the teacher to the items in this inventory add an additional referent by disclosing the teacher's perception of the communication pattern of the children in his classroom.

The procedure for the teacher in completing this inventory is for him to consider each item as descriptive of a certain communication characteristic, and to respond to that particular item by rating each child in the classroom on the basis of "YES, very much like this," "yes, a little bit like this," "no, not very much like this," or "NO, not at all like this." A sample item is shown in Figure 6.

1. Which children are always asking how things should be done?

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

Fig. 6.--Sample item from the Teacher Report: Children's Communication Scale

To aid the teacher in complying with the directions, each teacher was given a roster of the names of all the children in his classroom with each name accompanied by an identification number, and the instruction to use the identification number in responding about that particular child on the pertinent item.

Teachers were instructed that they could put as many or as few names as they felt inclined to in each of the four boxes. They were directed, however, to rate each child on each item.

Analysis. Data from the teachers' rating of children on the items descriptive of communication behavior were coded for numberical analysis as the scale score received by each child on each item. Scale scores were 4,3,2, and 1 for the YES, yes, no, NO responses, respectively.

This operation provides for the contingency analysis of association between the ratings by peers and by the teacher on the same items. Classes can be ordered in terms of the extent to which pupils and teacher agree upon which children are most or least characterized by descriptions of communication behavior. At the same time teachers can be ordered in terms of their discrimination on communication behavior among their pupils and according to their tendency to rate their pupils favorably or unfavorably.

Finally, analysis of the data permits the study of conditions under which pupils rate their teachers in certain ways. For example, earlier research indicated that "leaders" who are more discriminating are rated more favorably. This suggests the question of whether the same holds true for teachers.

Teacher Report: Children's Behavior Characteristics Scale

Description. The teacher's report of children's behavior is an inventory of nine brief behavior characteristics to which the teacher responds about the pupils in her class. These nine behavior items are similar to the items in the Child Report: Peer Behavior Characteristics, in which the children responded about their classmates, and the Child Report: Actual Behavior Characteristics, in which the children responded about themselves. For a more thorough discussion of the items used in this inventory and the constructs of social acceptability, aggressive maladjustment, and social isolation see the description of the CR: PBC, Appendix J.

In this instrument the teacher's task is to consider each item as descriptive of certain behavior characteristics and to respond to these items by rating each child in her classroom on the basis of "YES, very much like this"; "yes, a little bit like this"; "no, not much like this"; or "NO, not at all like this." For the format of this arrangement see the sample item in Figure 7.

1. Which children are good at starting games and getting things going? They think of interesting things to do.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

Fig. 7.--Sample item from the Teacher Report: Children's Behavior Characterictics Scale

In order to facilitate the teacher's task of responding about the children, and for ease in later computation of his responses, a sheet possessing the names of each child in the classroom, with an accompanying identification number, was given to each teacher.

The teachers were instructed that in rating a child on a particular item, they were to put his number in the column (YES, yes, no, or NO) that they thought most appropriately described his behavior; they were asked to repeat this procedure for each item, and to rate each child in the class on each item.

For a complete description of this instrument, see Appendix F.

Analysis. Data from the teachers' rating of the pupils on children's behavior characteristics were analyzed primarily as characteristics of the pupils rather than of the teacher. That is, each child's ratings by the teacher were coded 4, 3, 2, and 1 for the YES, yes, no, NO responses, respectively and were tabulated along with the other data for the child.

Present analysis is directed at answering questions concerning the shared space in the classroom. Is there more agreement between teacher and pupil, teacher and peers, or pupil and peers?

Other questions looked at the correlates of shared space. Under what conditions is there significant agreement between the ratings of teachers and those of the pupils?

Teacher Report: Children's Personality Factors

Description. This rating instrument consists of eight personality factor scales taken from the more comprehensive Children's Personality Questionnaire developed by Cattell(5). These are the same eight factors that were used in the Children's Personality Questionnaire and Early School Personality Questionnaire administered to the teacher-subject population in this study. Each of the eight factors were represented by a scale divisible into a series of five blocks with descriptions at the extreme of each scale. An illustration of this type scale can be seen in Figure 8.

THESE CHILDREN ARE MOST LIKE THIS.	THESE CHILDREN ARE SOMEWHAT LIKE THIS.	THESE CHILDREN DEMONSTRATE THESE TRAITS ABOUT EQUALLY.	THESE CHILDREN ARE SOMEWHAT LIKE THIS.	THESE CHILDREN ARE MOST LIKE THIS.

Critical, stiff, aloof, precise, suspicious, rigid, reserved, cold, prone to sulk, like to work alone.	Warm, outgoing, sociable, good-natured, ready to cooperate, readily laugh, soft-hearted, casual, adaptable, enjoy social recognition.

Fig. 8.--Sample item from the Teacher Report: Children's Personality Factors

In facilitating the teacher's rating of the pupil-subjects on these eight factors, use was made of the class roster. This roster contained names and identification numbers of each child in the classroom. The teacher-subjects were instructed to rate a child by placing his identification number in the space which they felt best corresponded to the child's psychological location on the scale. The teachers were advised to avoid the assumption that either end of any scale was "good" or "bad." Experience has shown that either end of a scale can be good or bad depending upon the criteria against which one is using the factor ratings. The teachers were free to place as many or as few names in each box as they believed representative of that behavior.

This rating technique made it possible to determine the extent to which teacher and pupil agreed as to the personality characteristics of the pupil, and to determine the extent to which a teacher's perception of personality is related to interpersonal variables, e.g. attitudes toward peers and attitude toward teacher.

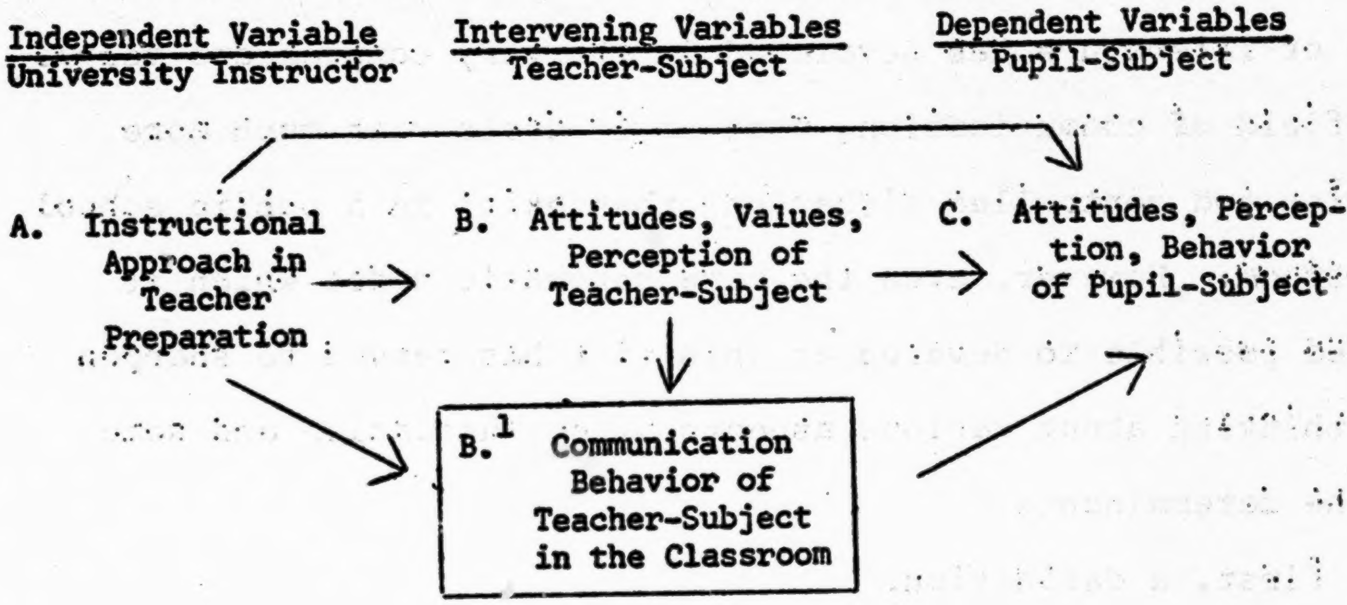
Analysis. Data from the teachers' rating of their pupils on the personality items were coded for machine analysis. Each child received a value of zero to five on each item, corresponding to the blocks from left to right on the teachers' questionnaire.

Present analysis consists of the examination of the correspondence between the teachers' ratings of the pupils on the factors and the pupils' actual factor scores. The general question which is guiding the analysis is: Under what conditions is the teacher more sensitive to differences among his pupils on dimensions measured by a standard personality factor questionnaire? Another question may be asked: Are there measurable differences between teachers who discriminate highly (placing children in many blocks, or utilizing extremes) and teachers who do not discriminate very much (placing most children's identification numbers in one or two blocks)?

CHAPTER IV

TEACHERS' COMMUNICATION BEHAVIOR

Rationale for the Communication Model


Independent Variable
University Instructor
Intervening Variables
Teacher-Subject
Dependent Variables
Pupil-Subject
A. Instructional Approach in Teacher Preparation
B. Attitudes, Values, Perception of Teacher-Subject
C. Attitudes, Perception, Behavior of Pupil-Subject
B.^{1} Communication Behavior of Teacher-Subject in the Classroom

As indicated in Chapter I, one of the primary ways in which we hoped to study our teacher-subjects was through observation of their behavior; it seemed that only in this way could we hope to gain some understanding of the ways in which they transmit some of the effects of their University experiences.

In developing a method of behavioral study, our first requirement was to select an aspect of behavior which we could assume represented a significant part of the teacher's total behavior in the classroom and at the same time could be observed and recorded in a reasonably objective fashion. Much of the early thinking was devoted to this question and the construct of communication was consequently developed as an "umbrella construct" under which much of the significant behavior in the classroom could be subsumed, conceptualized and gradually clarified(8).

What do we mean by the term "communication"? What sort of conceptual framework facilitates our looking at the classroom processes and understanding them? Although a considerable body of literature has developed in the very complex and technical field of communication, most of it deals with much more precise and controlled situations than exist in a public school classroom. However, even the bare schematic model which it seemed possible to develop at this time has served to sharpen our thinking about various aspects of communication and some of the determinants.*

First, a definition.

> Communication is a social function...It is essentially the relationship set up by the transmission of stimuli and the evocation of responses. (7:6-7)

Here the emphasis is on the relationship which is set up, in contrast to some earlier definitions in which the occurrence of "influence" or "response" was the essential condition of communication. In the classroom, there may be no immediate responses evoked by what the teacher has said and yet communication may have occurred in that the pupils have understood what the teacher has said.

In any conceptualization of communication it is essential to represent the speaker (the sender or encoder), the listener (the receiver or decoder) or listeners and the "message" (see Figure 9). The sender or encoder transmits a message, verbal or nonverbal, which is received through the sense organs by the receiver or decoder.

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*We have used Schramm's formulation(21) primarily in developing this diagram.

A fundamental and also obvious requirement for the successful communication of a message is that both sender and receiver must have a sufficiently common background of experience so that whatever is said or expressed through gestures can be expected to convey at least approximately the intended meaning to the listener. This background would include the possession of a common language and a cultural background with some common elements. In other words, in the accumulated experience there must be an overlap of the "fields of experience" of the sender and receiver if communication is to occur between these two individuals. They must have at least general agreement in the meaning they attribute to certain words or gestures if the message sent by one is to be understood by the other(11). The misunderstandings which occur so easily between individuals of different cultural or social class backgrounds in the meaning attributed to a simple gesture amply illustrate the importance of the overlap of the "fields of experience." However, even when these "fields" overlap so that there is approximate agreement on meanings, some individuals "get the message" much more clearly than others. One hypothetical explanation for this is that these individuals and the sender of the message agree much more closely in their perceptions of and meanings

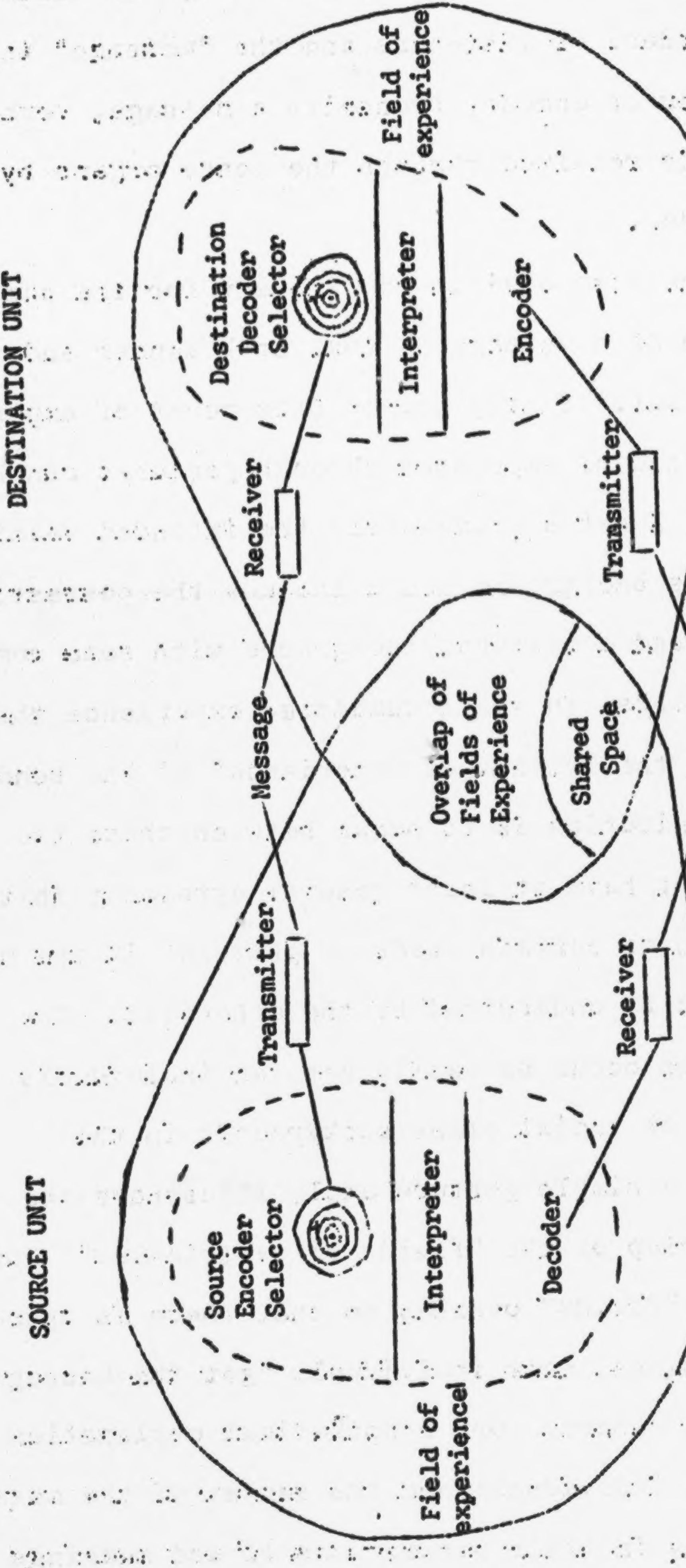
SOURCE UNIT
DESTINATION UNIT
Source Encoder Selector
Interpreter
Decoder
Field of experience
Transmitter
Receiver
Message
Overlap of Fields of Experience
Shared Space
Message
Receiver
Transmitter
Destination Decoder Selector
Interpreter
Encoder
Field of experience

Fig. 9.--Schematic model of the communication process attributed to aspects of the message and the situation in which it is sent than other potential receivers in the same group. We have developed the construct of "shared space" to describe the instances in which sender and receiver hold identical perceptions which are relevant to the message. The greater the shared space, the more effective we would assume the communication to be between these individuals. It is possible to test this assumption, for example, by collecting data regarding the perceptions held by the teacher and the pupils toward significant aspects of classroom interaction--such as the teacher's role, the teacher's behavior, and the pupils' behavior--and studying the degree of agreement between these perceptions and the relationship of this agreement with the pupils' attitudes toward school.

Returning to a consideration of the "sender" of the message, it is essential to take into account the process occurring before the sender transmits the message--the process of selection. Out of the totality of material which might be transmitted, the sender selects only a small part, and selects a particular way of verbalizing it. A teacher may have a wealth of information about the life of Eskimos, for example, but he selects only a small part of this information to tell to his class and expresses it in a particular way. This process of selection is conceptualized as one which includes cognitive and emotional aspects, both recognized and unrecognized needs, and one which is not completely known or understood by the person doing the selecting. However, it is possible to make certain inferences about this selection process from a careful study of the messages transmitted by a given individual. For example, it could be inferred that a message which includes greatly detailed information represents a different perception of the teaching role than a message which includes only a small amount of information and numerous questions about a topic. A message which includes praise for previous behavior in connection with introducing new activities for a given project represents a different perception of the pupils in the classroom than a message which includes reprimand and threats. We assume that teachers' perceptions of the total classroom situation, of their own role in the classrooms, and of the children in their rooms (whether perceived as the "well-behaved" or the "badly-behaved," to give a simplified example), will all have a profound effect upon the kinds of messages which they select and transmit to the class. Further, we would suggest that although they may not be fully aware of these determinants, clues to their differential perceptions are to be found in the particular kinds of messages which they transmit.

Similarly, we assume that the pupils do not simply "listen to" or "get" the messages sent by the teacher. The material received through each pupil's sense organs must go through a "selection process" before it is understood. One way of conceptualizing the selection process is to think of a series of filters. The individual pupil's readiness and ability to receive and comprehend depends not only upon his attention at the moment and his possession of a vocabulary sufficient to comprehend the words used by the teacher, but also upon his attitude toward school in general and toward the activity at the moment, his perceptions of the teacher, of the interaction process in the classroom, of the other pupils in the class and of his own role in the class, as well as upon his particular mental set and his needs at the moment(27).

Method of Recording Communication in the Classroom

Clearly the process of communication in the classroom is extremely complex. Focusing on one aspect of it, however--the verbal messages transmitted by the teacher--it has been possible to collect objective data and work toward a reliable method of analyzing these data.

The verbal message was selected only because it could be recorded electronically on tape; and by use of the Vega Mike, a clear recording of the teacher's verbalizations could be assured. An adequate recording of the pupils' verbalizations is also highly desirable but much more difficult to obtain, and we have only partially succeeded in this.*

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*All of the non-verbal messages transmitted both by the teacher and the pupils, such as gestures, posturing, and movement about the room, contribute importantly to the total communication process, but it was not possible at this stage of the research to record them adequately.

The Vega microphone was used to obtain the recording of the teacher's voice. The teacher wears a small battery operated microphone which is not connected with the receiver in any way; hence his freedom of movement around the room is not restricted. The Vega microphone receiver is connected with a Wollensak tape recorder to produce the tape recording. The recorder and receiver both may be placed outside the classroom if desired and still be in range for the Vega system.

A clear recording of the teacher's verbal communication seemed particularly important as the teacher is assumed to be the primary determinant of the classroom climate and generally the primary communicator as well. The teacher effects the pupils and the social situation which exists in a given classroom largely through verbal interaction. Hence an understanding of the ways in which he communicates and interacts is basic to any description of the classroom.

Two tape recordings were made of each of the teacher-subjects during the semester devoted to practice teaching, one early and one late in this period, and three recordings during the first year of full-time professional teaching, in the fall, mid-winter, and late spring. An attempt was made to record the teaching of the same subject matter area--either social studies or science at each observation time. In addition, since the three observations during the first year of full-time teaching covered an average of an hour and a half, the teacher's handling of other subject matter was also recorded.

Method of Analyzing Communication in the Classroom

Once the tape recordings are collected, there remains the task of analyzing them or describing them systematically in some way which permits summarizing the behavior contained in each one. The earlier work of Bales(2) in the categorizing the behavior of members of small groups and of Withall(24) in categorizing the behavior of teachers served as an initial stimulus for the development of categories. In attempting to develop a communication construct, it became apparent that most of the teachers' verbal behavior could be described either as "sending" or "receiving." "Sending" could be subdivided into categories such as giving information, giving analysis, or expressing personal opinion; "receiving" could subsume both listening and and the "intent to receive," and could include such categories as asking for information, asking for analysis, or asking for personal opinion. An original set of fourteen categories was developed(26) and used during the early years of the study. It was subsequently expanded to seventeen categories, to twenty-four, and finally, in the summer of 1963, to thirty-five categories. Many, although not all, of these changes resulted from a subdivision of existing categories in an attempt to analyze more precisely the kinds of teacher communication occurring.

Included in Table 8 are the identification numbers for each of the three major stages in the development of the categories from the original system of fourteen to the extended system of thirty-five. Extensive use was made of the revised system of seventeen categories, and most live observations made during the 1962-63 school year utilized this revised system. The availability of data in each of the three systems is reported in Table 9. No tape recordings were made of our teacher subjects during their junior year. Only "live" observations were made. Inasmuch as data for the junior year were all collected prior to any extension of the category system, all analyses of junior-year data must be in terms of the fourteen

TABLE 8

EVOLUTION OF CATEGORY SYSTEMS FOR ANALYZING VERBAL INTERACTION

Category Title	Category Code Original System	 Revised System	 Extended System
Asks for Information	1	1	1a $1b_1$ $1b_2$ $1b_y$ 1c
Seeks or Accepts Direction	2	2	2
Asks for Opinion or Analysis	3	3a 3b	3a 3b 3c
Listens	4	4	4a 4b
Gives Information	5	5	5a $5b_1$ $5b_2$ $5b_y$ 5c 5d
Gives Suggestions	6	6	6
Gives Directions	7	7a 7d	7a 7d
Gives Opinion	8	8b 8c	8b 8c
Gives Analysis	9	9	9

TABLE 8--Continued

Category Title	Category Code		
	Original System	Revised System	Extended System
Shows Positive Feeling	10	10	
Expresses Approval of Pupil or of His Behavior			10a 10b
Inhibits Communication	11	11	11
Shows Negative Feeling	12	12	
Expresses Disapproval of Pupil or of His Behavior			12a 12b
No Communication	13	13	13
Confirms or Denies Accuracy of Response	--	--	14a 14c
Perfunctory Agreement or Disagreement	14	14	--
Perfunctory Response	--	--	14b
Repeats What Pupil has Said			R
Repeats Factual Statement			RF
Repeats Statement of Opinion			RO
Repeats Analysis			RA
Repeats Statement of Experience			RE
Repeats Question			RQ
Names Pupil Following Question	--	--	N
Fragmentary Comment	--	--	F

categories. The extended system of categories was never used in live classroom situations for general data collecting, although its development was dependent upon both live and taped episodes. Thus, all analyses utilizing the extended category system are based on tape recordings.

TABLE 9

AVAILABILITY OF DATA FOR CATEGORIES FOR ANALYZING VERBAL INTERACTION

Stage of Subject Participation	Category System		
	Original 14	Revised 17	Extended 35
Junior Year	Live	----	----
Senior Year	Live or Tape	Tape	Tape
First-year Teaching	Live or Tape	Live or Tape	Tape

Descriptions and examples of the categories in the original and extended systems follow. Although there is some duplication for all but five of the categories, several differences between the fourteen and the thirty-five category systems will be noticed. The revised seventeen-category system is illustrated in part by each of the two systems presented. Eleven of the fourteen categories in the original system were kept intact in the revised system. The nature of the three revisions in this system (categories 3, 7, and 8) is best understood by noting the appropriate category number in the extended system (see

Table 8).

Fourteen Category System for Analyzing Verbal Interaction

1. Asks for Information

An act having as its major intent the eliciting of a response which presumably may be evaluated for accuracy, either by objective operation, general acceptance, or reference to an authority (such as the teacher or a textbook).

Examples: Asks question about content of lesson; asks for report; asks for confirmation of response previously given; asks for repetition of what has been said; offers incomplete statement with the expectation that another will finish it; asks any question in such a way as to imply that there is a "right" answer; asks name of an object; asks for definition; asks for enumeration.

2. Seeks or Accepts Direction

An act implying willingness to consider suggestion or direction from another, or if suggestion or direction has already been offered, an act or statement indicating compliance.

Examples: Asks how to begin an assigned task; asks what to do next; asks which procedure to follow; asks for volunteers; follows directions of another; agrees with suggestion or direction; indicates that direction will be followed at some future time; asks for permission for a specific act.

3. Asks for Opinion or Analysis

An act intended to elicit problem-structuring statements from others, either affective-evaluative or cognitive-interpretive.

Examples: Asks for opinion, wish, feeling, belief, or preference; asks for evaluation of behavior; requests interpretation or explanation of some phenomena without implying that there is one "correct" answer; requests elaboration or examples of a concept; requests statement of relationships by others; reflection of feeling or alternate meaning of what another has said for purposes of clarifying meaning; asks for interpretation of another's personal experience (as distinguished from asking for a report of experience).

4. Listens

An act of listening or attending to another individual for five consecutive seconds or more out of any 10-second interval (less than five seconds is not scored).

5. Gives Information

An act intended to convey, confirm, or infer "facts" which may be evaluated by objective operation, general acceptance, or reference to an authority.

Examples: Giving data such as names, dates, speed, capacity, etc. relevant to a topic under discussion; providing information requested by another; confirming the accuracy of others' responses; denying the accuracy of others' responses; giving report on what one has seen, heard, read, etc.; giving repetition of what has been said; naming object; giving definition; giving enuneration.

6. Gives Suggestion

An act intended to structure action or indicate alternatives for others which, at the same time, implies autonomy for others by providing more than one alternative or allowing for refusal.

Examples: Offering a procedure in a tentative way, offering two or more procedures, leaving choice to others, stating a preferred behavior without indicating that the preference holds for others; volunteering own services.

7. Gives Direction

An act intended to structure some action of another in which compliance seems to be taken for granted, or in which non-compliance would probably elicit some form of disapproval.

Examples: Calling class to attention; calling attention to some detail; getting attention of another by calling his name; routine administrative directions or orders; stating expectation of behavior to be followed; setting limits on behavior; stating consequences of behavior; granting a request; denying a request.

8. Gives Opinion

An act intended to structure or give direction to a topic under discussion by use of speaker's internal, private, or unstated criteria.

Examples: States opinions, wish, feeling belief, or preference; makes a statement or asks a question reflecting a personal point of view; verbalizes introspective processes;

gives criticism or evaluation of a behavior or concept; agrees or disagrees with opinion voiced by another.

9. Gives Analysis

An act intended to structure or give direction to a topic under discussion by reference to a frame of reference or a criterion that is explicitly stated and external to speaker's personal point of view.

Examples: Gives interpretation or explanation of some phenomenon without implying that it is the only "correct" way of looking at it; elaborates or gives examples of a concept; points out relationships between examples and concepts or between two or more concepts; points out discrepancies between concept and examples; proposes hypothetical example or case to illustrate a point or raise a question.

10. Shows Positive Feeling

An act which implies positive evaluation of some behavior or interaction in the observational field, regardless of whether the referent is the self or some other person.

Examples: Any friendly act or overture, such as greeting or responding to a greeting; praising, approving, encouraging, rewarding, or showing active attention to others; sharing or sympathizing with others; expressions of satisfaction, enjoyment, or relief; joking or laughing "with" others.

11. Inhibits Communication

An act which implies unwillingness or inability to engage in the ongoing process of communication, regardless of whether the act stems from negative evaluation, internal tension, or disinterest.

Examples: Does not respond when response would ordinarily be expected; is cool, aloof, or disinterested in what is going on; is inattentive to or ignores a question or request; does not comply with a request; shows tension by blocking, "fright," etc.; accepts criticism or rebuff without reply.

12. Shows Negative Feeling

An act which implies active negative evaluation of some behavior or interaction in the observational field, regardless of whether the referent is the self or some other person.

Examples: Disapproving, disparaging, threatening, discouraging another's behavior; lowering another's status;

defending or asserting self; poking fun, belittling, or laughing "at" others; expressing fear, rage, hostility, disappointment, discouragement, displeasure, unhappiness, etc.

13. No Communication

The behavior occurring in the classroom is not relevant to teacher-pupil communication for a 10-second interval.

14. Perfunctory Agreement or Disagreement

Thirty-five Category System for Analyzing Verbal Interaction

1. Asks for Information

1a Asks for academically verifiable information. An act which has as its major intent the eliciting of a response which is academically verifiable.

Examples: Where is Chicago? What is the title of the story? What is another word for "our Sun's family"? Spell "discount."

$1b_1$ Asking for information about (or information regarding the occurrence of past, present, or future experience of an individual child or small group of children which is either non-routine in nature within the class or is outside the class.

Examples: How many of you have seen the mailboxes here in town? How many of you have been to the zoo at the park?

$1b_2$ Asking for information about (or information regarding the occurrence of past, present, or future experience of the class as a whole, which is either non-routine in the class or is outside of the class.

Examples: Can you see the flag? Do you remember when we went to the bakery last fall?

$1b_y$ Asks for objective information within a personal frame of reference. This includes either individual children or the class as a whole.

Examples: What is the name of the street you live on? Is your father a fireman? Do you know where you were born?

1c Asks for other kinds of information, primarily having to do with class process and procedure. Includes all routine classroom experiences.

Examples: Who has the book? Where is the paper cutter? Have you finished your work? Who needs extra work sheets?

2. Seeks or accepts direction

An act implying willingness or desire to consider suggestion or direction from another, or if suggestion of direction has already been offered, and act or statement indicating acceptance.

Examples: Who else has an idea? Or recognizing a child by calling on him. "John?" (not in response to a prior question on his part)

3. Asks for Analysis

3a An act requesting interpretation or explanation of phenomena, elaboration of examples of a concept, a statement of relationship between concepts, a statement of causation or analogy, a statement of deductive or inductive reasoning, statements of generalizations or hypotheses.

Examples: How would you explain this, John? Can you give us examples of this? What conclusions would you draw from this?

3b Asks for personal opinion, personal interpretation or feelings about subject matter.

An act intended to elicit an expression of personal opinion or feeling about subject matter.

Examples: What do you think he will do? How do you feel about President Lincoln's stand on secession? Would you like to be an astronaut?

3c Asks for report of personal opinion, personal interpretation or expression of feeling about things not related to subject matter.

Examples: How did you feel when you couldn't go? Are you still a little bit afraid of it?

4a Listening or attending to an individual in response to communication initiated by the teacher, either asked for or directed.

Examples: Responses to: Read the next paragraph. Tell us...

4b Listening or attending to an individual in response to communication initiated by someone other than the teacher.

5. Gives Information

5a Gives academically verifiable information.

Examples: The sun is a star. Today is Tuesday. Here is the location of Panama.

$5b_1$ Gives information about (or information regarding the occurrence of, or regarding the meaning of) past, present or future experience of an individual child or small group of children, which is either non-routine in nature within the class or is outside the class.

Examples: Lou knows what it is like to feed a puppy. Sally has seen the Fountain of Youth in Florida.

$5b_2$ Gives information about (or information regarding the occurrence of, or regarding the meaning of) past, present or future experience of the class as a group, which is non-routine within the class or is outside of the class. (The teacher may or may not include herself in giving this information.)

Examples: We went to the zoo last fall. Tomorrow we will see a film strip about sun-spots.

$5b_y$ Gives objective information within a personal frame of reference for an individual child, small group or entire class and/or the teacher.

Examples: Mike brought a picture of a tugboat today. There is a squirrel outside the classroom window. Goodness you remember lots.

5c Gives other kinds of information primarily pertaining to classroom processes or procedures. It may also include routine classroom experiences.

Examples: The reference books are over here. Tomorrow we will start work on these maps.

5d Gives information about an experience or the occurrence of an experience of the teacher which is either non-routine within the class or outside of the class.

Examples: I have seen the nation's capital. I have a mailbox at home and the mailman comes to my door. I have a dog too!
(Note: Comments about the meaning of the experience would go into 8b or 8c.)

6. Gives Suggestion

An act intended to suggest action or indicate alternative for other which, at the same time, implies autonomy for other by providing more than one alternative or allowing for refusal.

Examples: You might want to see what the encyclopedia has to say. Maybe you can think of a better title later.

7a Gives Administrative Directions

An act intended to structure some action in which compliance seems to be taken for granted, or in which non-compliance would probably elicit some form of disapproval. Structuring is related to administrative aspects of the situation.

Examples: John's reading group will start now. Take out your paper.

7d Gives Disciplinary Directions

An act intended to structure some behavior or other in which compliance seems to be taken for granted, or in which non-compliance would elicit some form of disapproval. Structuring is related to disciplinary aspects of the situation, but is not accompanied by negative feeling.

Examples: Sh-h. We're too noisy. Please sit down and wait for me. If you do that again, I will have to ask you to leave the group.

8b Gives personal opinion, personal interpretation or expresses feelings about the subject matter.

An act intended to express opinion, attitudes, feelings about subject matter.

Examples: I like that one better. I'm sorry, I didn't understand what you said. Then it's my fault, I'll change your mark.

8c Gives report of personal opinion, or personal interpretation, or expresses feeling about things not related to subject matter.

Examples: I will always remember how badly we felt when the barn burned. It makes me feel very happy when you do things like that.

9. Gives Analysis

An act intended to structure a topic under discussion by reference to a point of view or criterion that is explicitly stated and/or external to speaker's personal point of view; if made up of a series of 5a's, then put brackets around them in order to indicate that their total equals a 9.

Examples: When things are different temperatures they are different colors. It couldn't very well be, with all the hot gases.

10a An act implying or expressing approval of a child's behavior, e.g. academic performance, ideas, etc. The act implies that the child is viewed as an object rather than a unique individual. It may be expressed with or without feeling.

Examples: That's a fine report, John! You're really perking today! That would be a joke on all of us, wouldn't it.

10b An act implying that the teacher is expressing the prizing of the child as a unique individual, i.e. shows acceptance of the child as he is now, positive regard of the student as a unique person.

Examples: John, you're a fine boy. I like you a lot.

11. Inhibits Communication

An act which implies unwillingness to engage in or inattentiveness to the ongoing process of communication, regardless of whether the act stems from negative evaluation, internal tension, or disinterest. (This is often scored with another unit when the teacher raises his voice and disregards what the children are saying.)

12a An act which implies or expresses disapproval of a child's behavior, e.g. academic performance, ideas, etc. The act implies that the child is viewed as an object rather than a unique individual. It may be expressed with or without feeling.

Examples: Wally, will you sit down! We can't have that.

12b An act implying that the teacher is expressing the devaluing of the child as a unique individual, i.e. shows disapproval of the child as he is now.

Examples: Gary, you're a pest all the time. I really don't like you now.

13. No evidence of communication or interaction although voices can be heard.

No evidence that the teacher is responding to communication in the classroom, although voices can be discerned on the tape.

14a An act which has as its major intent the confirmation or denial of the accuracy of a response. It may be said with or without feeling.

Examples: No. That's right.

14b An act which confirms the partial accuracy of a response and implies that additional information is desirable or needed. The act must have an encouraging tone for the respondent to continue.

Examples: Yes, but what else? Right, but who else knows a reason?

14c Perfunctory remarks, which may imply mere closure.

Examples: Ok. Um-hum. Well-l.

R Repeats what the student has said, either verbatim or general context.

F Fact
O Opinion
A Analysis
E Experience
Q Questions

N Calls on the child after a discernible pause, following a question.

Examples: 1. John? 2. Who is the president? John?

F Fragmentary comment--incomplete and not a meaningful unit by itself. The teacher must change the direction of communication in order for this to be scored, i.e. repeating, pausing, ah's, etc.

Unit of Analysis

Up until the summer of 1963, the category system was used as a time sampling method--first with a 10-second unit and later five; for each five-second period a category was recorded which in the judgment of the observer represented the teacher's "dominant intent" during that interval. More recently, it has become clear that since several communication acts frequently occur within one five-second interval, the use of only one category to represent this period of time gives only a partial picture and also reduces reliability between judges.*

For these reasons, during the spring and summer of 1963 we developed the *communication unit* as the basis for analysis. By this method, a much more complete picture of the classroom interaction is obtained, as everything the teacher says can be categorized in sequence. For the definition of a *communication unit* we have used Saporta's early definition of a psycholinguistic unit as the "segment of the message which is 'functionally operative' as a whole in the process of encoding and decoding" (20:61).** The problem of developing criteria to determine when a segment is "functionally operative as a whole" is essentially that of identifying and defining "boundary markers" or objective indications that the sender has completed a unit of communication, which, in addition, is "functionally operative" as a unit for the receiver. Intonation pattern has been our principal criterion; a drop in the voice (or a rise, if a question is asked) almost invariably indicates the end of the unit. However, the context within which words are spoken and the grammatical structure must also be taken into account at times in making the decision. There are certain words in our language which, when spoken singly in response to another person (such as "good," "no," and "yes"), convey a functionally operative meaning. Occasionally a teacher may say such a word and then continue with an elaboration. In these instances the separate word would be counted as one unit and the elaboration as another, since each could stand alone in this context and convey meaning to the listener. Grammatical structure as a further criterion is useful both when the sender is expressing units in succession (as, for example, several independent clauses strung together without a drop in voice, in which case each would be counted as a unit), or expressing an after-thought following a drop in a voice. If the after-thought is of a dependent nature (a qualifying phrase or clause), it would not be counted as a separate unit as it could not stand alone or be functionally operative.

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*We are indebted to Brian Heath for a study of agreement among categorizers using the seventeen-category system. After intensive training, the intra-rater stability coefficients, using the Spearman statistic ρ, ranged from .69 to .99 for six categorizers. Their inter-rater agreement, using the same statistic, ranged from .84 to .99. In both instances, identical segments taken from tape recordings were categorized independently at two different times by each categorizer. However, this statistic appeared to provide spuriously high coefficients because of the preponderantly high frequency of relatively few categories in the segments and the very low frequency of most of the categories. Hence coefficients were computed to show inter-rater agreement in each five-second interval, correlating each of five categorizers with a sixth who was most highly practiced in using the system; these coefficients ranged from .33 to .74.

**Many researchers have encountered the problem of defining a "verbalization unit." In summarizing methods of studying speech development in children, Irwin discusses the problem of defining the sentence or verbalization and indicates some of the ways in which different workers have handled it. Both a "thought unit" and an "expression unit" have been defined in terms quite similar to our criteria for determining a "communication unit" (14:507).

Agreement is high in the identification of units. Five different persons, two of whom analyzed each of 40 five-minute segments, showed a range of 81 to 100 percent agreement in the number of units identified, with the agreement in over half the segments 95 percent or higher.

There are primarily two advantages in using the communication unit as the basis for categorization instead of a time-sampling method: (1) categorizers are categorizing the same verbalization of the teacher instead of having to decide which verbalization represents the "dominant intent" during the interval of time covered, and (2) a complete sequence of verbalizations is recorded so that sequence analysis can be carried out.

Some Influences in the Development of a Category System

The goal in the work on category systems in this project has been to develop an objectively defined set of categories relevant to the communication construct and reasonably complete in the description of the kinds of teacher communication behavior. As we have worked with the systems, it has become increasingly apparent that even an analysis of the teacher's verbal communication which is intended to be objective and non-evaluative can be conducted from many different points of view and levels of inference and abstraction, and furthermore, that the particular vantage point selected will reflect (intentionally or not) the assumptions made (with awareness or not) about what are some of the important aspects of classroom interaction. In an attempt to clarify our own point of view, we have stated the following assumptions which have influenced our thinking about the teacher's behavior in the classroom. We assume that it makes a difference to the pupils if the teacher:

1. Is interested in finding out what kinds of personal experiences (both cognitive and noncognitive) the pupils have had or are having, and what personal meaning or interpretation they give to these experiences.

2. Shares his own personal experiences with the pupils, and expresses his personal interpretations and feelings.

3. Has created a climate in which spontaneous reactions are expressed by the pupils, rather than a climate in which he calls on pupils and listens to them only for responses to his questions and directions.

4. Expresses approval of a pupil's behavior or contribution, or merely confirms the accuracy of his answers.

5. Expresses disapproval of a pupil's performance or merely denies the accuracy of his response.

6. Encourages a pupil at the same time that he denies the accuracy of at least part of his response.

7. Asks for pupil's suggestions and preferences and accepts these when expressed.

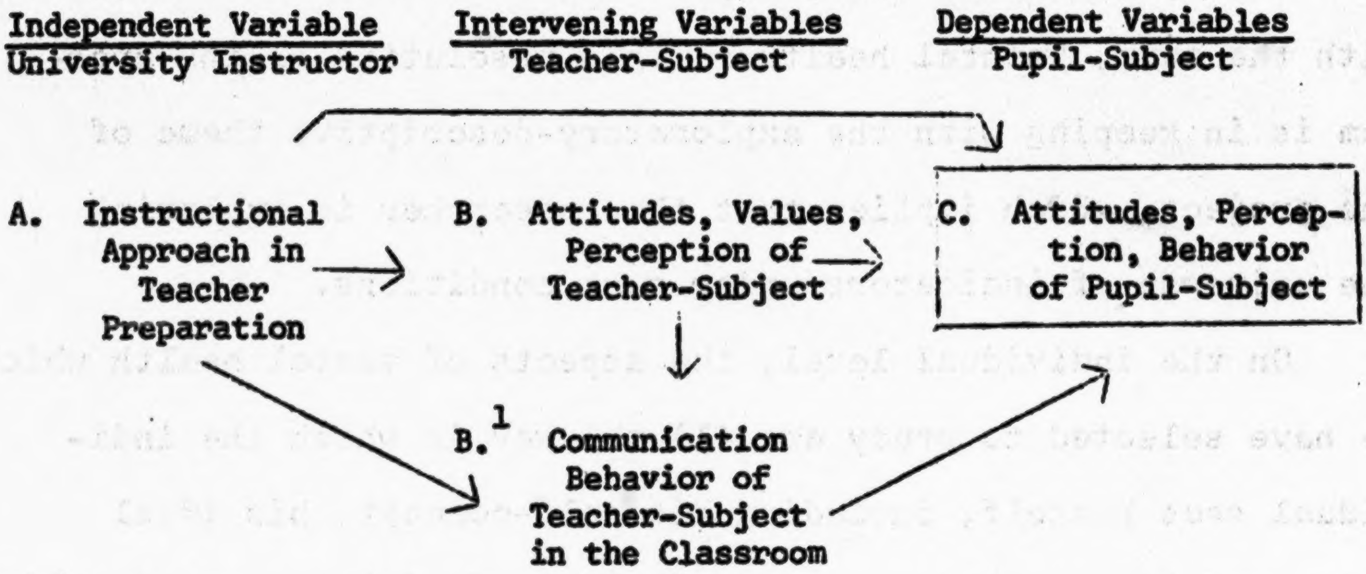
8. Analyzes some of the material presented, and asks the pupils to analyze it, and illustrates it, or presents material as factual information to be learned as stated.

9. Gives frequent directions to be followed precisely, or gives suggestions which need not necessarily be followed.

CHAPTER V

CHILDREN'S ATTITUDES, VALUES, AND PERCEPTIONS

Rationale for Instrumentation


Independent Variable
University Instructor
Intervening Variables
Teacher-Subject
Dependent Variables
Pupil-Subject
A. Instructional Approach in Teacher Preparation
B. Attitudes, Values, Perception of Teacher-Subject
C. Attitudes, Perception, Behavior of Pupil-Subject
B.1 Communication Behavior of Teacher-Subject in the Classroom

As stated earlier, one of the primary objectives of the Mental Health Teacher Education Research Project at the University of Wisconsin was to study the influence of the elementary teacher upon the mental health of children in the classroom. This section presents the rationale for the selection of instruments which were adapted or developed for the measurement of dependent variables in the classroom during the teacher-subject's first year of full-time professional teaching.

At an early stage in the project, it was decided that the term, "mental health," although useful for denoting the general concept of social and psychological adjustment, had through usage become value-laden and ill-defined, and therefore not amenable to the operation of rigorous conceptual and operational definition required in scientific research. An inquiry into the literature (e.g., Jahoda(15)) made it clear that the task of defining "mental health" is beyond the scope of the present research. The alternative which was selected was to define personality variables and group variables which are associated with the term, "mental health." This resolution of the problem is in keeping with the exploratory-descriptive theme of the project, which implies that the researcher is exploring the universe of indicators under such conditions.

On the individual level, the aspects of mental health which we have selected to study are (1) the way in which the individual sees himself, including his self-concept, his ideal self, and his attitudes toward himself, and (2) the way in which the individual perceives his social environment, including his attraction to others in his group, his perception of the group as gratifying or hostile, and his attitude toward the school environment.

Several important considerations guided the selection of the kinds of variables which were to be identified and measured. The first consideration was the requirement that our measures be as comprehensive as possible--that they tap as many dimensions of personality and of the quality of the classroom group as possible within the limitations imposed by the administration of a group questionnaire in elementary classrooms. The second consideration was the fact that we saw ourselves attempting to define important dimensions on two levels, the individual and the group. In this connection, the work of R. B. Cattell(3) is pertinent. Cattell distinguishes three types of group dimensions: syntality traits, which correspond to the personality traits of the individual person, and are the dynamic, temperamental, and ability traits of the group; internal structure characteristics, which "concern the relationships among members of the group"; and population traits, which are mere aggregate values--mean or modal characteristics. Cattell's identification of the latter type of trait demonstrates that behavior patterns can be seen as characteristic of both individuals and groups. Overt emotional reactions are at the same time part of a personality dimension and part of a group dimension.

From the above considerations, it was seen that we wanted to define and measure not two types of variables, personality and social-emotional climate, but three types: (1) social-emotional climate as a syntality trait, (2) the quality of interaction in the classroom as a structural characteristic, and (3) personality variables, both as individual measures and as population traits.

Conceiving the social-emotional climate of the classroom as a syntality trait which can be inferred from interaction characteristics and from mean values which are given by personality questionnaires is not inappropriate: Cattell states that, "The probable relationship among these three panels is that if we knew all the laws of social psychology we could predict the first from the second and third."(3) Also, elementary school teachers are accustomed to referring to a particular class as an entity, implying that certain descriptions characterize the group as a group. It is not unusual to hear a teacher remark, "That is a good group," or "They were such a wild bunch!" The teacher probably is referring to an aggregate of individual behaviors and of the reactions of the children to one another.

Considerations arose which relate specificially to the observation of personality variables. Primary among these considerations is the notion that personality is a multi-level phenomenon. That is, it may be seen as consisting of relatively superficial aspects, which include role behavior, attitudes, and observable mannerisms, and "deeper, underlying" aspects, which we may think of as including needs, dispositions, temperament, and the like. Constructs at the latter level are not accessible to direct observation and therefore are often highly inferential. There is considerable skepticism regarding the question of whether the elementary school teacher has any influence at all upon the aspects of his pupils' personalities which have to do with social-emotional adjustment. At the same time it is in connection with the measurement of these very aspects of personality that there is the most skepticism. Therefore a dilemma is seen: to the extent that we focus upon the objective behavior of the children and avoid references to theoretical constructs at a "deeper" level, we are looking at superficial aspects of personality, and if we attempt to get at measures of more subtle emotional dimensions, we are both making a larger gap between our instruments and our concepts and making the large assumption that the teacher and the classroom climate measurably influence the deeper-lying emotional variables. If we choose the course of observing only overt behavior, we are risking the possibility that the teacher has exercised successful control over the children, training them to be "good" pupils, and we are more or less assuming that emotional problems on the deeper levels will "come out" in behavior, particularly in that behavior which is observed and rated. A resolution of the dilemma was found in the selection of measures which hopefully assess "personality" at both overt and covert levels.

The selection of measures of classroom structure variables requires further considerations. First, the important social structure variables refer generally to the quality of interaction among pupils in the classroom. How do the children respond to one another? How much are individual members attracted to the group? Are there cliques? Scapegoats? Do the pupils feel that their peers are hostile toward them? Second, it is obvious that if they are to be part of a pencil and paper test the measures must consist of peer ratings on sociometric and other, similar, questions.

A pilot study of a number of instruments provided support for the proposition that in measuring behavior characteristics of individuals in groups, the most meaningful operation is the gathering of data which include self-reports, peer-reports, and "outside observer" reports which consist of references to those behavior characteristics which are most objective and most susceptible to discrimination. In connection with the latter point, there is some evidence that behavior which reflects adherence to or deviation from the most salient values concerning social behavior lends itself most readily to the discrimination of persons. Within the broader framework of the research objectives, this is a convenient and significant impression. For in dealing with the question of measuring social-emotional variables which are relevant for adjustment, we have the problem of the selection of measures which are at the same time indicators of the emotional state of the individual, indicators of the individual's social adaptation, indicators which reliably discriminate among persons, and indicators which are related to the value structure of the institutional context whithin which the behavior occurs. It appears that all of these requirements can be met by measures of behavior differences which are most apparent to the teacher, the peers, and the pupil himself. Not only will teacher and peers be most perceptive of such behavior differences as are related to the most salient values concerning the elementary school situation, but also the pupil himself may be defined by the teacher as "maladjusted" to the extent that he violates classroom behavioral norms. This reasoning led to the final selection of the instrumentation described in the next section.

A further consideration in the selection of measures was the desire to know how the teacher's communication was perceived by the pupils. In studying relationships between teachers' communication behavior and psychological factors in the classroom, it would be difficult to draw inferences from connections between observational data (recorded by trained observers) and pupil behavior if there were little or no connection between the teacher's communication as rated by the trained observer and as perceived by the pupils. Also, measures of the pupils' perceptions of their teacher when compared to measures of the teacher's perception of himself would provide an index of shared space in the classroom with regard to the teacher as the object of perception.

In seeking to measure the important personality variables, the desire to be as comprehensive as possible led to the identification of several types of personality dimensions which have possible relevance for social and psychological adjustment in the classroom.

One important variable is seen in the pupil's self-concept. As was stated in an earlier paper(10):

> We are concerned with the child's feelings of adequacy and whether the classroom experience enhances or decreases these feelings. Does the experience of the classroom interaction affect the self-concept in a manner which helped the child perceive possibilities in himself which he did not realize were present or does it cause him to regard himself as less adequate to solve problems and interact with others?

Closely related is the notion of self self-ideal discrepancy. Previous research has shown self self-ideal discrepancy to be highly correlated with anxiety. For the measurement of these variables an instrument was sought which could be used in self ratings, peer ratings, and ratings by the teacher. The Child

Report: Children's Behavior Characteristics Scale (Actual-Ideal), which was patterned from the Reputation Test devised by Wilbert Lewis(17), was selected as most suitable for all these purposes. This questionnaire contains nine items which refer to three basic constructs defined as socially adjusted, aggressive, and socially isolated. It is readily seen that these constructs correspond to the three basic personality patterns projected by Karen Horney(13) as underlying interpersonal response traits: the tendencies to move towards people, against people, or away from people. At the same time, the Child Report: Children's Behavior Characteristics Scale (Actual-Ideal) is recognized as conforming to an important principle in the construction of rating scales, the principle that the constructs upon which respondents are asked to rate themselves or others should be kept simple and clear.

The second type of measure to be considered and accepted for inclusion in the study can be described as the behavioral, or reputational measure. In brief, the question is, "How is the pupil seen by his peers and by his teacher?" Is he consistantly identified by certain descriptions? Here, the Child Report: Peer Behavior Characteristics Scale was used to rate one another on the items. The teachers were asked to rate the pupils on the same items (see Teacher Report: Children's Behavior Characteristics Scale).

An additional peer-rating instrument was included in order to assess pupils' responses to one another on items referring to communication behavior. The Child Report: Children's

Communication Scale was designed partly as a measure of "shared space" and partly as a measure of the quality of interaction in the classroom. Teachers' ratings of the pupils, when compared to peer ratings, would provide a measure of "shared space."

Attitudes of the children toward school and toward learning were seen as constituting an important dimension. For this reason, a questionnaire was developed which measures the favorability of the pupil's attitude toward school, learning, and his classroom situation. This was given the title, Child Report: School Attitude Scale.

Finally, it was reasoned that a general personality questionnaire should be administered which would measure as many personality factors as possible. The purpose here was again complex. First, there was the desire to learn whether significant changes would be related to teachers' communication behavior. Secondly, there was a desire to learn the conditions under which certain types of interaction are observed and under which pupils perceive their teachers in certain ways. A search for such a personality questionnaire led to the selection of the Child Report: Children's Personality Questionnaire for intermediate grades and the Child Report: Elementary School Personality Questionnaire for primary grades(5,4). These tests are the children's equivalents of the Sixteen Personality Factors Test and are the result of extensive factor analytic research involving numerous subjects and questionnaire items(6). The teachers' ratings of their pupils on the personality factors were also obtained.

It can be seen that three of the theoretical approaches to the study of personality have been incorporated: the typological approach, the trait and factor approach, and the social (interaction) approach. Thus the exploratory nature of the research project is being carried into the design for the observation of the pupil-subjects.

Several words of caution are in order. First, "social adjustment," as one might infer from the instrumentation, is not viewed as synonymous with or indicative of "mental health." By the same token, aggressive behavior and withdrawn behavior are not viewed as symptomatic of "maladjustment." However, certain measures, or combination of measures will be considered indicative of situations which are conducive to anxiety and to defensive attitudes and behavior, or situations which inhibit the learning process and social-emotional development.

For the measurement of structural traits in the classroom, two general procedures were adopted. The first was the use of the Child Report: Peer Choice Rating Scale in which each child rated every other child in the classroom. The rationale was that the entire sociometric structure of the class could be obtained by such a procedure and that a matrix could be generated which would reveal each child's choice value given to and received from each other child. From this matrix could be measured such variables as reciprocation of choices, stability of sociometric structure across time, the existence of cliques, stars, and isolates, and the patterns of choice-giving among stars and isolates. Also, an important dimension, which has been shown by previous research to be highly related to such factors as group morale, is the distribution of choice values. Do only a few pupils receive high sociometric scores and many pupils relatively low scores when choice values received are totaled, or are choice values fairly evenly distributed?

In connection with the broader research objectives, several questions were raised: Does the teacher influence the sociometric structure of the classroom? Does the distribution of choices become more equitable in the classroom of a teacher who gives emphasis to creating an acceptant-permissive atmosphere? Does the teacher have influence upon relationships between the sociometric status of children and other variables such as achievement, sex, and peer ratings on the hostile-agressive factor?

The second procedure for the measurement of classroom structure traits was based upon the assumption that the quality of interaction can be operationally defined in terms of the way in which class members respond to one another on a number of positive and negative descriptive items. That is, to the extent that class members identify one another as hostile-aggressive, the social-emotional climate of the classroom is viewed as defensive. This rationale is elaborated upon in the section which deals with the description of the instrument. Because the Child Report: Peer Behavior Characteristics Scale includes the desired types of items, and because of the time limitations in administering a group questionnaire in elementary classrooms, the decision was made to use the peer ratings on the CR: PBCS for the purpose of assessing the favorability of class members' descriptions of their classmates.

In summary, the need to examine the relationships between teachers' communication behavior and mental health in their classrooms and the difficulties encountered in the conceptualizing of "mental health" led to the specification of certain aspects of mental health and to the selection of relevant personality and group variables.

The design included two features: (1) the approach would be perceptual and would draw from three sources of perception; the pupil, the peers, and the teacher; and (2) observation would be made at two levels, the individual and the group, with the individual observations consisting of self-reports, peer-reports, and teacher-reports, and the group observations consisting of population traits and structural characteristics, or interaction traits, from which can be inferred the social-emotional climate of the classroom.

From the above design, two questionnaire booklets were developed, one for pupils and one for teachers. The pupil questionnaire included instruments for the measurement of perceptions of self, self-ideal, peers, teacher, and ideal-teacher, and for the measurement of school attitudes and personality factors. The teacher questionnaire included scales for his rating of himself, self-ideal, and of his pupils on behavioral items, communication items, and personality factor descriptions.

The following section describes these instruments and the procedures used for their analysis.

Child Report: Teacher Communication Scale (Actual-Ideal)

Description. The Child Report: Teacher Communication Scale, which consists of twelve items, was developed for the purpose of measuring children's perceptions of their teacher's behavior on dimensions which correspond to categories found in the observational recording system. It will be recalled that there are thirty-five basic categories defined as, for example, "gives information," "asks for information," and "gives directions." Two categories are omitted in the children's questionnaire. One refers to perfunctory agreement, a concept which is not believed to be amenable to discrimination by elementary school children. The other refers to the absence of communication--where no sending or receiving is taking place. The descriptive items and corresponding communication categories are shown in Table 10.

The twelve items were selected after analysis of a pilot study of an instrument containing thirty-six items. Items were chosen upon the basis of clarity, logical relationship to the conceptual categories, and discrimination and internal consistency. The form of the final instrument is similar to that of the Child Report: Behavior Characteristics Scale (Actual-Ideal) instrument; descriptions of behavior are given, followed by the question, "Is my teacher like this?"

Because certain of the items have negative connotation such that positive responses to them might be interpreted as devaluation of the teacher when this is not the case, the same descriptive items are given on a separate page with the question, "Would I like a teacher like this?" This latter instrument is referred to as the Child Report: Teacher Communication Scale

TABLE 10

DESCRIPTIVE ITEMS ON TEACHER COMMUNICATION RATING SCALE WITH CORRESPONDING VERBAL COMMUNICATION CATEGORIES

Item	Description	Category
1.	Some teachers can give you facts about many things.	5. Gives academically verifiable information
2.	Some teachers ask lots of questions about things in school.	1. Asks for academically verifiable information.
3.	Some teachers suggest different things so you can choose for yourself.	6. Gives suggestion.
4.	Some teachers are too busy to notice when you need help.	11. Inhibits communication.
5.	Some teachers ask you how you think things should be done.	2. Seeks or accepts direction.
6.	Some teachers tell you exactly what to do.	7. Gives directions.
7.	Some teachers make you feel as if they don't like you.	12. Shows negative feeling.
8.	Some teachers ask you how you think and feel about things.	3. Asks for opinion.
9.	Some teachers let you know how they feel and think about things.	8. Gives opinion.
10.	Some teachers listen to you when you want to tell them something.	4. Listens.
11.	Some teachers can explain things clearly.	9. Gives analysis.
12.	Some teachers make you feel as if they were your friend.	10. Shows positive feeling.

(Ideal), the former as the Child Report: Teacher Communication Scale (Actual). The format of the items of the two instruments remain identical except for the stems. See sample items in Figure 10.

		YES	yes	no	NO
Some teachers suggest different things so you can choose for yourself.	Is my teacher like this?	☐	☐	☐	☐
Some teachers suggest different things so you can choose for yourself.	Would I like a teacher like this?	☐	☐	☐	☐

Fig. 10.--Sample items on the Child Report: Teacher Communication Scale (Actual-Ideal)

The Child Report: Teacher Communication Scale (Actual-Ideal) instrument provides a measure of the pupil's ideal teacher against which his rating of his teacher can be evaluated and from which can be inferred the relationships between pupils' "teacher-ideal" and other variables, such as grade level, sex, achievement, and contact with a particular teacher during a school year.

Analysis. The data from the CR: TCS(A-I) instruments were summarized for each class as the mean pupil response to each of the twelve items on the four point scale, the mean discrepancy between responses to the two questions on each item, and the total mean discrepancy between responses to the two questions on each item, and the total mean discrepancy for the twelve items.

Comparison of the teachers' ratings on all of the twelve items immediately appeared to be an unnecessarily complex task. The nature of the items suggests that there may be several underlying factors which account for the responses of pupils to their teachers on the questionnaire. Therefore the data were subjected to factor analysis. Five factors were yielded, and four were rotated by the varifax method. The rotated factor matrix is given in Table 11. The column headed h^2 shows the communalities. Factor loadings of .20 and larger were arbitrarily selected as indicating significant contribution of an item to a factor, except in the case of Factor I, in which .40 was the cut-off point. Because of the subsequent utility of these factors in later analysis of the data, they are discussed here in some detail. The first factor, "Interest in Interpersonal Relationships," accounts for 37 per cent of the total variance and includes four items (see Table 12). The factor seems to indicate teachers' concern for what the pupils think and feel and teachers' willingness to reveal personal opinions to the pupils. The teacher who scores high on Factor I might be described as interested in personal content and in establishing a relationship with the pupils which is conducive to the expression of personal material.

The second factor, "Directiveness," which accounts for 23 per cent of the total variance, includes items that relate to the structuring of classroom procedure (see Table 13).

The directions of the factor loadings indicate that teachers

TABLE 11

ROTATED FACTOR MATRIX OF THE TWELVE ITEMS ON THE CHILD REPORT: TEACHER COMMUNICATION SCALE (ACTUAL)

Item	Factors				
	I.	II.	III.	IV.	h^2
1.	.203	.055	-.009	.332	.155
2.	.420	.261	.026	.166	.273
3.	.179	-.256	.138	.184	.151
4.	.034	.429	-.125	-.159	.226
5.	.467	-.359	-.007	.070	.352
6.	-.046	.351	-.012	.095	.134
7.	.035	.176	-.460	-.152	.267
8.	.538	-.189	.121	.175	.370
9.	.489	-.017	.102	.110	.262
10.	.087	-.004	.222	.402	.218
11.	.097	-.098	.149	.353	.166
12.	.212	.005	.467	.107	.275

TABLE 12

FACTOR I - INTEREST IN INTERPERSONAL RELATIONSHIPS

Item	Description	Factor Loading
8	Ask you how you think and feel about things	.538
9	Let you know how they feel and think about things	.489
5	Ask you how you think things should be done	.467
2	Ask lots of questions about things in school	.420

TABLE 13

FACTOR II - DIRECTIVENESS

Item	Description	Factor Loading
4	Are too busy to notice when you need help	.429
6	Tell you exactly what to do	.351
2	Ask lots of questions about things in school	.261
5	Ask how you think things should be done	-.359
3	Suggest different things so you can choose for yourself	-.256

who score high on Factor II are seen by their pupils as too busy to notice when help is needed, telling pupils exactly what to do, asking many questions, and giving little opportunity for pupils to suggest or select alternative procedures and activities.

The third factor, "Relatability," which accounts for 20 per cent of the total variance, includes items that are clearly affective in connotation (see Table 14). It is interesting to note that the item which refers to listening is included in the factor. Apparently the factor could almost be called

TABLE 14

FACTOR III - RELATABILITY

Item	Description	Factor Loading
12	Make you feel as if they were your friend	.467
10	Listen to you when you want to tell them something	.222
7	Make you feel as if they don't like you	-.460

"receptiveness," or "responsiveness." In any case, the teacher who is seen as a listener is also seen as one who shows positive affect.

The fourth factor, "Academic Orientation," accounts for 20 per cent of the total variance and includes items which are basically related to the sending-receiving dimension. At first glance, the factor is paradoxical to the extent that sending and receiving are thought of as opposite poles of a continuum, i.e., the signs of the opposing items should change. However, it is important to recognize that the children were not asked to estimate the proportion of time their teacher spent in each type of behavior--they were asked to rate the extent to which the description "fit" their teacher. Also, the general nature of the factor rules out halo effect as an explanation. Therefore the factor is seen as describing a dimension which may be defined as concern for academic exchange. Teachers who score high on this factor relative to other factors are perceived by their pupils as concentrating on subject matter. (See Table 15.)

TABLE 15

FACTOR IV - ACADEMIC ORIENTATION

Item	Description	Factor Loading
10	Listen to you when you want to tell them something	.402
11	Can explain things clearly	.353
1	Can give you the facts about many things	.332

The construct validity of the four teacher rating factors was tested by the standard method of investigating the relationships between the factors, treated as variables, and other variables with which they can theoretically be expected to correlate. Two procedures were used: correlation analysis and contingency analysis.

It was expected that the perceptions of teachers by pupils on the dimensions defined by the factors would be related to such variables as favorability of school attitudes, sociometric status, achievement level, sex, grade level, and personality ratings.

Pupils' ratings of their teachers on Factor I, "Interest in Inter-personal Relationships," was found to be correlated positively with their sociometric status, school attitude favorability score, and negatively with their CPQ Factor score on O, "anxiety." There were no unanticipated correlations. Grade level was inversely related to teachers' ratings.

Ratings by pupils of their teachers on Factor III, "Relatability," were correlated positively with school attitude favorability scores and with measures of pupils' "sociability," and negatively with self- and peer-ratings on the hostile-aggressive factor of the CR: PBCS. Ratings were higher by girls and by high achievers.

Ratings on Factor IV, "Academic Orientation," were correlated with positive attidues toward school. Ratings were higher by girls and by high achievers.

In summary, all four factors demonstrate some construct validity, while only that of the first three factors can be said to be satisfactory.

Child Report: Peer Communication Scale

Description. The Child Report: Peer Communication Scale, developed by members of the project, consists of eight items which refer to certain of the communication categories employed in the analysis of the teacher's communication pattern. The scale was developed and administered to the pupil-subjects for two primary purposes: first, as a measure of "shared space" when compared with the teacher's ratings of the pupils on a similar instrument, and second, as a means of determining the extent to which children are perceptive of behavior differences on the dimensions defined by the items and the extent to which the items are related to other variables, e.g., sociometric status.

The administration procedure was the same as that for the Child Report: Peer Behavior Characteristics Scale. Intermediate pupils read the items and referred to a printed class list for classmates' numbers; the administrator read the items to primary pupils, who referred to a composite class photograph for classmates' numbers. A sample item is shown in Figure 11.

8. Some children ask you how you think things should be done Who are They?

Fig. 11.--Sample item from the Child Report: Peer Communication Scale.

Analysis. As in the case of the Child Report: Peer Behavior Characteristics Scale, raw data were coded for numerical analysis as the number of nominations received by each child on each item. To date, analysis consists of a study of internal consistency and the correlations between pupil's ratings on the items and twenty other variables including other peer ratings, CPQ Factor scores, and sociometric status scores.

Child Report: Peer Behavior Characteristics Scale

Description. The Child Report: Peer Behavior Characteristics Scale, which is a variant of standard sociometric procedure, involves the presentation of brief behavior characteristics to a group of children with instructions to assess which members of their peer group fit the description.

The CR: PBCS used in this study was adapted from a test developed by Lewis(17), who had analyzed and revised items from earlier studies done by Havighurst and others(12) and Mitchell (18).

This is a nine-item test, three items describing each of the three constructs: socially acceptable, aggressive, and socially isolated. The construct of social acceptability includes active involvement in highly-valued peer group activities, spontaneity in expression of feelings and attitudes, and a minimum of internalized tensions or conflict with the environment, as characteristic role behaviors. The aggressive construct is characterized by involvement in social activities, but accompanied by open conflict and the expression of intense negative feelings. The social isolation construct involves withdrawing behaviors, emotional constriction, and generalized internal tensions. Lewis reported that each group of three items proved to be internally consistent, to have significant positive correlation with the group of three items, and to have no correlation with items representing the other two constructs. The test-retest reliabilities of the three groups of items were estimated as .98 for social acceptability, .82 for aggressive maladjustment, and .72 for social isolation.

The format of the items (see sample items in Figure 12) is designed so that the constructs appear in triads, i.e., socially acceptable items are ordered as #1, #4, and #7.

1. Which children are good at starting games and getting things going, the ones that think of interesting things to do?

2. Which children quarrel and argue a lot?

3. Who are the boys and girls that are too shy to make friends easily?

Fig. 12.--Sample items from the Child Report: Peer Behavior Characteristics Scale.

In order to facilitate the children's task of responding about their peers, and for ease in computation of their responses, a sheet possessing the names of each child in the classroom with an accompanying identification number was presented to each child with the test form. In the case of grades 1 and 2 where name recognition would be difficult, a composite photograph of all the children in the classroom with identifying number was given each child. Intermediate grade children were instructed to read each item and respond by putting the numbers (corresponding to the child on the name sheet) of the boys and girls whom they selected as possessing the characteristics of that particular item. In the case of primary grade children, the test administrator read the items and the children were instructed to look over the photograph and respond by putting down the numbers (corresponding to the pictures on the composite photograph) of the boys and girls they think the description refers to. The children were instructed that they need not fill all the boxes and that if they needed more space they could put more than one number in the box.

Analysis. The raw data were coded for numberical analysis as the number of nominations received by each child on each item. This operation provided for analysis at two levels, that of the class and that of the individual. The number of nominations received by individuals can be examined for their relationships with other variables, such as sex, self-concept, teacher ratings, and favorability of school attitudes. At the same time, each class can be represented in terms of such measures as the number of children named on each item, the total number of nominations made by the class on each item, and the distribution of nominations.

Because of the complexity of both the instrument and the purpose for which it was used, the data yielded by the CR: PBCS were analyzed in several ways. While the structure of the instrument is described above, a discussion of the complex purpose for which it was used is in order.

In the most general terms, the CR: PBCS (peer nomination technique) was used as a partial measure of the favorability of the social-emotional climate of the classroom. The rationale for its use was that to the extent that peers are indicated as described by favorable vs. unfavorable items, the social-emotional climate is favorable, and, the obverse, the indication of peers on unfavorable items is positively related to the unfavorability of climate.

This reasoning follows from these premises: (1) The items referring to socially accepted behavior and socially accepted persons also refer to the persons with positive valence for the respondent. (2) The items referring to aggressive behavior and to withdrawn, socially isolated behavior refer to persons having negative valence for the respondent. (3) The elementary school pupil is a member of a nonvolunatry group situation in the classroom, and, as such, his "morale" is highly dependent upon the positive vs. the negative attraction which the group has for him. (4) The positive vs. negative attraction of the group for its members can be operationally defined as the tendency of its members to be named by one another on positive vs. negative, or favorable vs. unfavorable, descriptions.

It was further reasoned that the attraction of the group is a function not only of the tendency for members to be named but for members to identify others on favorable descriptions when given the opportunity to do so. Therefore the total number of nominations made on each item was recorded as a class measure, and an index was derived which incorporates both the number of pupils named on an item and the number of possible choices utilized by all class members. This index is expressed in terms of the proportion named and the proportion of possible choices used; hence it is referred to as the "cross proportion."

Also, in order to determine how many pupils were being nominated with some consensus, it was decided that the number of pupils receiving more than the expected number of nominations on each item should be studied. The expected number of nominations was believed to be represented by the population mean. (This mean was preferred to the class mean because in classes with high means only a few pupils may exceed the mean, in which case misrepresentative figures would have resulted). One assumption underlying the above operation is that persons receiving one or two nominations on an item represent random choosing. Hence, on any item, the number of nominations made may be taken to represent (1) the extent to which the description is felt by the pupils to characterize members of the class or (2) the presence of positive or negative attraction, according to the item. The number of persons who receive more than the expected number of nominations may be taken to represent (1) the "sharing" of the behavior or quality described, (2) the intensity of positive or negative attraction which named members have for the group, and (3) the consensus of opinion among class members regarding the applicability of the description to particular persons.

Items which load each of the three factors on the CR: PBCS were combined in order to assess the tendency of the class to be characterized according to each behavior cluster. This combination was accomplished by computing the probability that a person drawn at random in the class was named at least once on at least one of the items on that factor. Probability statistics were utilized to facilitate the comparison of classes differing in size.

Finally, two indices were computed for each class which indicate the combined tendencies of class members to name one another and to be named on both favorable and unfavorable items. The first of these indices, called the Primary Index of Social Acceptance (PISA) is the probability that a child drawn at random in the class was named on at least one of the favorable items and on none of the unfavorable items. The second index, the Refined Index of Social Acceptance, is the probability that a child drawn at random in the class was named more than the expected number of times on at least one of the favorable items and on none of the unfavorable items.

In short, the instrument has been used in the present research primarily as a diagnostic device for classes rather than as a diagnostic screening device for individuals.

Formulae for the class statistics are presented below:

The cross proportion for each item is given by

$$P_i = \frac{\text{Number named at least once}}{\text{Number in class}} \times \frac{\text{Number of choices given}}{\text{Possible number of choices}}$$

The probability that a pupil was named on at least one item on the socially accepted factor is given by,

$$P_{sac} = 1 - [(1 - P)(1 - P_4)(1 - P_7)]$$

and the probability that a pupil was named at least once on at least one of the items on the socially accepted factor but not once on any of the other items is given by

$$PISA = P_{sac}(1 - P_{hag})(1 - P_{wid})$$

where P_{hag} is the probability that a person was named on at least one item on the hostile-aggressive factor and P_{wid} is the probability that a person was named on at least one item on the withdrawn-social isolate factor.

Analysis was made of the individual correlations between factor scores, PISA, and a number of other variables, including the CPQ Factor scores, and the sociometric status scores. Correlations generally gave substantial evidence for the reliability and validity of both the data and the constructs.

Child Report: Children's Behavior Characteristics Scale (Actual-Ideal)

Description. The purpose of the Child Report: Children's Behavior Characteristics Scale (Actual-Ideal) is to elicit from the pupil an intra-self measure of the relationship between a pupil's perception of his environment and his conception of what it ought to be. What is looked for is the degree of discrepancy between a pupil's self perception and an ideal self;

between his perception of himself as he is and as he would like to be.

The CR: CBCS is a nine-item test, three items describing each of the three constructs: socially adjusted, aggressive, and socially isolated. These items, except for form are similar to the items used in the Child Report: Peer Behavior Characteristics Scale. These same items were selected for this test because it afforded an opportunity of indicating congruence or incongruence between a student's perception of himself and the way he is perceived by others, a check as to what extent a student's image of himself matches the image his classmates have of him.

In the first part of the CR: CBCS(Ideal) the student is asked to indicate how strongly he would like to be or would not like to be the person described. In the second part of the CR: CBCS(Actual), the items are repeated and the student is asked to indicate how strongly he feels he is like or is not like the person described. In order to reduce the influence of the pupil's responses to the first part upon his responses to the second, the two parts are widely separated in the test booklet. The two responses by the student (i.e., whether or not he wants to be like and whether or not he is like) are then compared in the scoring process, after which the amount of discrepancy between the two tests becomes the index of self-concept.

The format of the items (see sample items in Figure 13) remains identical except for the stems--Do I want to be like this? and Am I like this?

Actual

1. Some children are good at starting games and getting things going. They think of interesting things to do.	Am I like this?	YES yes no NO ☐ ☐ ☐ ☐

Ideal

1. Some children are good at starting games and getting things going. They think of interesting things to do.	Do I want to be like this?	YES yes no NO ☐ ☐ ☐ ☐

Fig. 13.--Sample items from the Child Report: Chindren's Behavior Characteristics Scale, (Actual-Ideal).

Analysis. Responses to the items were scored 4, 3, 2, and 1 respectively, and were tabulated for machine analysis. Primary analysis consisted of the summarizing of data from each class. A computer program was written which computed the mean response score for each item on each of the two parts, the mean discrepancy score for each pair of corresponding items, and the total mean discrepancy. The "mean self-concept" of a class on each of the three constructs, or factors, was computed by summing each child's responses to the items on each construct for a factor score and finding the mean factor score for the class. These in turn were printed by the computer as the "mean self-concept profile," in which the three factor scores appear from left to right as aggressive, socially acceptable, and socially isolated. Correlation analysis of the mean self-concept profile scores has provided evidence of their construct validity.

Individual's factor scores on the self-ratings were correlated with a number of other variables as part of an ancillary study of pupil's perceptions of self, teacher, and peers. The correlations give substantial evidence of the construct validity of the three factor scores.

Analysis is currently being directed toward the discrepancy scores and their relationships with other variables such as sex, age, school attitude, achievement, and sociometric status.

Child Report: Children's Personality Questionnaire--Early School Personality Questionnaire

Description. Cattell's "Children's Personality Questionnaire"(5) and Coan's "Early School Personality Questionnaire" (4) were used as the instruments for assessing personality patterns of the pupil-subjects in this study. The CPQ measures a set of 14 distinct dimensions of personality. The ESPQ, adjusting items for age interest, makes use of the same principle personality dimensions.

Because of time limitation in test schedules, it was necessary to restrict the questionnaires to eight factors. Those factors selected for inclusion in this study are shown in Figure 14.

Both the CPQ and ESPQ were administered in group situations. Certain differences should be noted between the make-up and administration of the two questionnaires. The CPQ was administered in grades 4 through 6. Each of the eight factors contained five items arranged cyclically in terms of factors. The students

A.	CYCLOTHYMIA (warm, outgong, sociable)	SCHIZOTHYMIA (critical, stiff, aloof)
C.	EGO STRENGTH (stable, realistic, calm)	EGO WEAKNESS (emotionally immature, can't face realities)
E.	DOMINANCE (aggressive, self-assertive, rebellious, self-assured)	SUBMISSIVENESS (dependent, obedient, mild)
F.	SURGENCY (gay, talkative, enthusiastic)	DESURGENCY (sober, depressed, glum)
G.	SUPER EGO STRENGTH (conscientious, determined, persistent)	SUPER EGO WEAKNESS (undependable, casual, guitting)
H.	PARMIA (thick-skinned, socially bold, impulsive)	THRECTIA (timid, threat-sensitive)
O.	GUILT PRONENESS (worrying, discouraged, lonely)	UNPERTURBED ADEQUACY (secure, confident)
Q_4	HIGH ERGIC TENSION (tense, restlessly active)	LOW ERGIC TENSION (relaxed, low tension drive)

Fig. 14.--Certain ESPQ - CPQ factors.

were asked to read the 40 statements, with each statement containing two possible choices, and to "mark the side that fits you better." The ESPQ was given to grades 1 through 3. Each of the eight factors contained six items also arranged cyclically in terms of factors. Here the items were read aloud and the children were instructed to mark the choice which fits them best. With the use of a scoring key, each child's questionnaire was checked and a score was recorded for each of the eight factors.

Analysis. Factor scores were tabulated for machine analysis. Use of the computer for analysis has made possible the easy conversion of raw scores to stens or staves in the event such scores were required by a particular analysis. Also, corrections for sex and age differences in scores, recommended by Cattell in the Handbook for the CPQ, are made as a subroutine in computer programs which compare groups involving sex and age differences.

Correlations between CPQ and ESPQ factors scores and other variables have been studied.

Child Report: School Attitude Scale

Description. All pupil respondents were administered, as a part of the test battery, a series of twelve items designed to measure the favorability of elementary school pupils' attitudes toward school. The items are intended to assess positive or negative attitude with reference to several aspects of the school situation: the classroom, learning, schoolwork, and school in general. Several of the items are original in the present research, while others are borrowed from earlier studies. There are six positive and six negative statements, ordered in such a way as to reduce bias from response set.

The format of the items (see sample items in Figure 15) is designed to reduce the operation of the tendency to give socially approved responses, or a bias in the direction of social approval. By prefixing the items with the clause, "Some children say," it was hoped that the attitude expressed by each item

SOME CHILDREN SAY:

		YES	yes	no	NO
I enjoy most of the things I do in school.	Do you feel like this?	☐	☐	☐	☐
I think school is a waste of time.	Do you feel like this?	☐	☐	☐	☐

Fig. 15.--Sample items from the Child Report: School Attitude Scale.

would be regarded as the "norm" for a set of children and that the respondent would be more willing to express his own negative feelings if he were "agreeing" with this imagined set of peers.

Intermediate grade-level pupils were instructed to read the items and mark their responses, and the items were read aloud to the primary grades. Testing personnel were advised to take special precautions against confusion resulting from double negatives. That is, they were told to emphasize that the child was to answer the question, "Do you feel like this?" rather than to state the corollary to: "I don't like all the hard work we have in school."

Analysis. From the research population of approximately 1,070 pupils, data from 822 pupils were used for analysis of the instrument. These data excluded responses from pupils who were judged to be unreliable, and excluded the entire test of any respondent who failed to respond to one or more items on this test.

Test data were tabulated on IBM cards and were submitted to analysis on the CDC 1604 computer by use of the Generalized

Item and Test Analysis Program (GITAP).* This program provides a score for each individual, a frequency distribution of the test scores, summary statistics of the sample, internal consistency reliability of the test by means of Hoyt's Analysis of Variance Method, item difficulty, and item-criterion correlation, either biserial r or point biserial r.

The input routine includes a set of scoring key cards upon which the item response weights are punched. This feature permits the varying of weighting schemes, even to the extent of omitting particular items by assigning all responses zero weights.

The School Attitude scores were developed by running the GITAP program several times with different weighting schemes. The first analysis was made with item responses weighted 4, 3, 2, and 1, or according to the coding system which was used for all responses on the "YES, yes, no, NO" scale. Item statistics indicated that other weighting systems would be more appropriate. For example, it was learned that for each item all responses except the one at the favorable extreme were correlated negatively and significantly with the total scores. This meant that for a positive item a child who responded "yes" was more likely to have a low total favorability score than a high one, which in turn indicated that the respondents did not "see" the scale which was intended by the response alternatives. Apparently, the four step scale taps heavily the negative end of the attitude range. This is probably an artifact of the reluctance of children to express negative attitudes toward school (and authority figures), a reluctance which resulted in the marking of "yes" responses when "no" or "NO" were the covert responses (see the frequency distribution of item choices presented in Table 16). Item descriptions are found in Appendix L.*

---

*Written by Frank Baker, on library tape in the University of Wisconsin Numerical Analysis Laboratory.

TABLE 16

FREQUENCY DISTRIBUTION OF ITEM RESPONSES AND
CORRELATION OF FAVORABLE RESPONSE
WITH TOTAL TEST SCORE

*Item	Item Responses				R
	YES	yes	no	NO	
1.	501	228	46	47	.84
2.	157	177	168	320	.74
3.	442	184	89	107	.79
4.	105	37	54	626	.58
5.	552	201	54	45	.88
6.	640	106	23	53	.76
7.	142	125	116	439	.84
8.	381	238	130	73	.88
9.	72	40	79	631	.76
10.	110	65	120	527	.79
11.	127	122	152	421	.75
12.	487	154	77	104	.73

The final run was made with the extremely favorable response on each item weighted seven (the highest possible weight) and all other responses weighted zero. Table 16 shows the frequency distribution of total score.

The Hoyt Reliability coefficient was .84, and the correlation of extremely favorable responses to each item with total scores is shown in the right-hand column of Table 16.

Child Report: Peer Choice Rating

Description. The Child Report: Peer Choice test employed in this study was patterned after a procedure developed by Virgil Herrick and staff in the Wisconsin Growth Study(23). The method used was to record a "feeling" response of every child in the classroom for every other child in the classroom. Names of each of the children were printed on small 1" x 2" cards and each child received a complete set of these cards. In the case of grades 1 and 2, where name recognition would be difficult, each child received a set of small 1" x 1" pictures of his classmates. The children were instructed to sort these names (or pictures) according to their regard for them. Three envelopes were also distributed with the cards (or pictures) with the words "YES," "yes," and "NO" printed on them. On the first sort, children were instructed to place the names (or pictures) of children they would like to play with in the "BIG YES" envelope and those they would not like to play with in the "BIG NO" envelope. On the next sort, after removing the "BIG NO" envelope and replacing it with the "little yes" envelope, the children were instructed to take the names originally assigned to the "BIG YES" envelope and place those names (or pictures) of the children they especially liked to play with in the "BIG YES" envelope. Figure 16 gives a break-down of this sorting procedure.

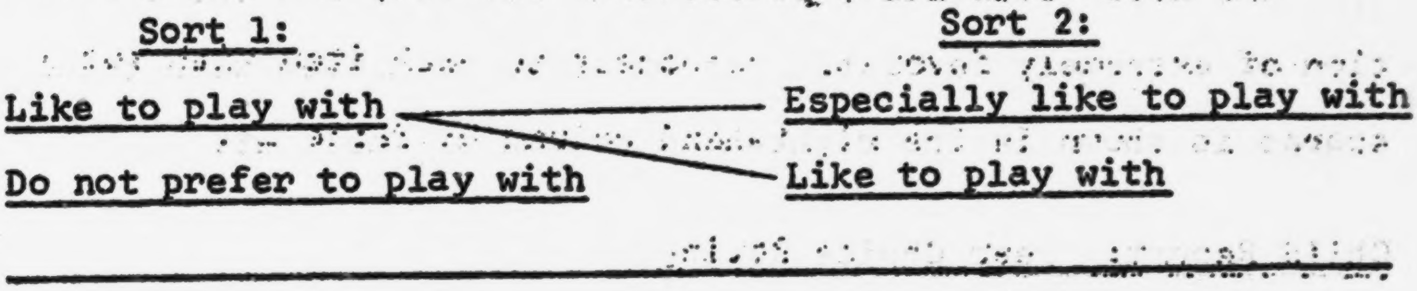


Fig. 16.--Sociometric card sort into three preference levels.

Analysis. The preference choices were scored 3, 2, and 1 for the "YES," "yes," and "NO" responses, respectively, and were recorded for each class in an N x N matrix where N represents the number of subjects in the class at the time of sociometric testing. Subjects' names or identification numbers were listed along the top and left-hand margins, usually in alphabetical order. Columns represented choice values given, and rows represented choice values received. That is, the preference ratings given by an individual were listed in the column beneath his name or number, in the rows corresponding to the persons to whom he had given the ratings.

Summing the choice values received gave each subject a sociometric status score, or an index of preference from the entire class.

The stability of choices on the three administrations of the test in October, January and May, was analyzed by computing for each class the proportion of choice values given that remained the same in subsequent testing. At the same time, the proportions of increase in choice values given and decrease in choice values given were computed for each class. The raw data and proportions were computed and printed by the computer in the form of transitional matrices. Present analysis is dealing with the question of the conditions under which there is stability, "upgrading" and "downgrading."

Classes are also being analyzed in terms of mean sociometric value given (the mean sociometric status score divided by N-1) as an overall index of liking. Several important questions are being treated: What is the relationship between the teacher's communication behavior and the mean sociometric value given? What are the relationships between sociometric values given and such variables as school attitude, perception of the teacher, and personality factor scores?

Finally, it is hoped that an index of "peer acceptance" can be developed from a combination of sociometric status scores and nominations on negative descriptive items on the peer-rating questionnaires. The notion of peer acceptance is defined here as the liking of a person in spite of the fact that he is seen as possessing undesirable traits. Where peer acceptance is low, there should be a high negative correlation between sociometric status and nominations received on the unfavorable descriptive items. If peer acceptance is high in a class, there should be little or no correlation between these variables.

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APPENDIX A

TEACHER REPORT: CARTOON SITUATIONS TEST

Cartoon	Description	Caption
I.	Two little girls playing dolls. One child is handing a doll to the other.	"It's yours for keeps--until I want it."
II.	A teacher carrying a screaming and kicking child into the principal's office.	"Peter is a trifle over-stimulated, Miss Gaffney. May he visit with you until he calms down?"
III.	Three children painting at easels, two are covered with paint. The third child, a little boy, is explaining to the teacher.	"But I had to paint him green, Miss Johnson...I used all the purple on Sally."
IV.	A boy had bound his baby brother (or sister) to the back of a chair and is explaining to his mother who looks angry.	"Honest, Mom, it was an accident."
V.	A teacher is playing the piano for the children who are dancing around, each holding a handkerchief in the air. One child is lying prone under the piano bench.	"The children are all little sailboats, but Gerald forgot his handkerchief, so he has to be a submarine.'
VI.	A small boy standing in front of an officer at a desk in a precinct court with tears rolling down his face. Another officer writes down the nature of his crime.	"I've come to give myself up...I threw the spitball at Miss Hogan."
VII.	A teacher, around whom the children with baleful looks in their eyes have built a high building block enclosure, is greeting a surprised looking parent as she enters the door.	(The teacher says:) "For the first time this term they are cooperating beautifully."

APPENDIX B

TEACHER REPORT: SEMANTIC DIFFERENTIALS

Your Name:____________________ Date:________________________

Person to be described:_______________

1.	successful	' ' ' ' ' ' ' '	unsuccessful
2.	severe	' ' ' ' ' ' ' '	lenient
3.	active	' ' ' ' ' ' ' '	passive
4.	obscure	' ' ' ' ' ' ' '	lucid
5.	skillful	' ' ' ' ' ' ' '	inept
6.	serious	' ' ' ' ' ' ' '	humorous
7.	fair	' ' ' ' ' ' ' '	unfair
8.	excitable	' ' ' ' ' ' ' '	calm
9.	sensitive	' ' ' ' ' ' ' '	indifferent
10.	uncritical	' ' ' ' ' ' ' '	skeptical
11.	naive	' ' ' ' ' ' ' '	sophisticated
12.	rational	' ' ' ' ' ' ' '	intuitive
13.	eccentric	' ' ' ' ' ' ' '	conventional

Appendix B

14. aloof ' ' ' ' ' ' ' ' sociable

15. cautious ' ' ' ' ' ' ' ' rash

APPENDIX C

TEACHER REPORT: STRUCTURED INTERVIEWS

First Interview Questions

1. At this point how do you feel about becoming a teacher?

2. As a person who is planning to be a teacher you have probably given some thought to ideas or attitudes you would like to develop in the children you teach, ideals that reflect your personal convictions. Can you tell me about some of these and how you think they might affect your teaching?

3. People are the same in many ways but no two people are alike. What are some ways in which you are different from other people?

4. If you were somehow granted the ability to change yourself in any way you choose in what ways would you like to be different than you are?

5. How about your good points? What helps you to be successful in some of your activities?

6. Think of a teacher you have known whom you hold in particularly high esteem. (Please remember the same teacher you used on the person description test that you have taken. If you haven't taken the person description test yet please remember the teacher whom you describe to me and use him or her when you answer the test.) Now describe this teacher to me so that I can understand what sort of person he or she is and why you feel as you do.

7. Now try to think of a teacher whom you didn't like, or of whom you felt especially critical. (Please remember the same teacher you used on the person description test that you have taken. If you haven't taken the person description test please remember the teacher whom you describe to me and use him or her when you answer the test.) Now describe this teacher to me so that I can understand what sort of a person he or she is and why you feel as you do.

8. You are the teacher in a first grade classroom. You are

particularly concerned about one little girl, Alice, because she seems unusually shy and insecure with the other children. Another girl in the class publicly accuses Alice of taking a dollar bill brought for a lunch ticket. Alice tearfully denies it, saying the dollar she has is one she brought to school for her lunch ticket. The other child repeats her accusation, saying she saw Alice take the money. What do you think your response would be?

9. Suppose you are a fourth grade teacher. One of your pupils, Jimmy, has repeatedly had apparently painful stomach aches, usually beginning about thirty minutes after school starts. His family physician can find nothing particularly wrong with him physically, and his mother reports that when she takes him home from school on these occasions he feels better and wants to go out to play. What would be your course of action?

10. You are a new member of the faculty of an elementary school. Another teacher tells you that the third grade teacher has been spreading rumors that you are using new procedures in order to get out of some of the routine tasks that have been customary in this school. What would you do?

11. The mother of one of the children in your classroom tells the principal that her son has failed to learn to read because you were inefficient in your teaching methods. When the principal calls you into his office to get your version what would you tell him?

12. One of the pupils in your seventh grade class is openly disrespectful and refuses to obey and cooperate with you. What can you do?

13. A student is introduced to a variety of new concepts or ideas, or ways of looking at the world during his college career. I would like you to pick out one important idea that you have encountered and then assuming I know nothing about it try to explain it to me as clearly as you can.

14. Imagine that you have been called in to substitute on the spur of the moment in a third grade classroom. The teacher has asked you to take fifteen minutes to introduce to the class the concept of gravity. Without any time for special preparation, what are some of the things you would do or talk about to the class?

Appendix C

Third Interview Questions

1. Think of a teacher you have know whom you hold in particularly high esteem. (Please remember the same teacher you used in the first interview and on the person description test.) Now describe this teacher to me so that I can understand what sort of person he or she is and why you feel as you do.

2. Now think of a teacher whom you didn't like, or of whom you felt especially critical. (Please remember the same person you used in the first interview and on the person description test.) Now describe this teacher to me so that I can understand what sort of person he or she is and why you feel as you do.

3. Now that you've had two semesters with some experience in teaching, what are your feelings about teaching?

4. Suppose you are in your first year of teaching in an elementary school. The teachers have met informally to discuss discipline procedures. A majority of the teachers have come to the conclusion that, in general, children that consistantly cause problems should be turned over to the principal, and the discipline left to his discretion. As a member of this group, what do you think you would say or do in this situation?

5. How would you describe yourself as a person?

6. What kind of a person would you ideally like to be?

7. Suppose that in your fourth grade classroom two of the library books are reported missing. They can be found nowhere in the room. Susie, whom you have trusted, had signed out the books, but claims she had returned them. What would be your course of action?

8. If you are going to retain Jimmy for a second year in your grade, because he has failed to perform adequately, academically and socially, how would you communicate your decision to the parents?

9. Imagining that such would be possible, describe to me as specifically as you can what your ideal teaching placement would be like and how you would ideally like to be as a teacher within this situation.

10. I would like you to take the concept of electricity, and then, assuming that I know nothing at all about it, try to explain it to me as clearly as you can.

Appendix C

Fourth Interview Questions

1. Now that you have been introduced to your practice teaching situation will you tell me about it, especially those aspects that seem most important to you. (If not mentioned: What about the cooperating teacher? What about the children in the room?)

2. Could you tell me as much as possible about just what you hope to gain from your practice teaching experience?

3. What do you think are the most important responsibilities of the teacher in the classroom?

4. How do you feel about assuming these responsibilities? Which ones will be more difficult for you and which ones will seem easier? (If R omits mentioning either one: And which ones will seem more difficult? And which ones will seem easier?)

5. Suppose you are a third grade teacher and you are introducing a new unit in science. One of the boys who is a very able student seems bored and inattentive. What would be your reaction?

6. Suppose you are supervising a recess period and Mary runs up to say that Billy is teasing her. While she's talking to you Billy runs up and says: "What are you tattling for? I was only fooling." To emphasize his point he gives Mary a shove and she falls to the ground. Billy runs off as he sees what he has done. What would you do?

7. Just before class one fall morning a group of your sixth graders is talking with you. Ron, head bowed, slowly approaches you. Oblivious to the group he looks up at you with wet eyes and says: "My dad was killed in a hunting accident late yesterday. I wish I'd been on this trip with him." How would you feel and what would you say? (Later, if not covered: How would you respond to the interest and concern of the rest of the class?)

8. You have been very pleased with your second grade class and feel that it has been an outstanding group to work with. It is the end of the school year and you are announcing to the group that you will be their third grade teacher next year. At this point Janie, whose ragged clothes and pale, thin face have concerned you all year, bashfully stands up and says: "I really like you as my teacher. I wish you were my mother, too." What would be your feelings and what would you say to her at that moment?

Appendix C

Fifth Interview Questions

1. How do you feel about your practice teaching experience this semester? (Note: pause for answer.)
   a) Did you gain all you expected to from this experience?

2. How do you feel about your cooperating teacher? (Note: pause for answer.)
   a) In what ways is she (he) the kind of teacher you would most like to be?
   b) In what ways is she (he) very different from the kind of teacher you would most like to be?

3. Tell me about the children in your classroom this semester. (If R asks "In what way?" say "In any way you wish.")

4. During your practice teaching you probably had some incidents occur in your classroom experience with the children which seem to stand out in your mind. Would you tell me about one of these which was especially satisfying to you.

5. Would you tell me about another incident in your classroom experience with the children which seemed very unsatisfactory to you. (Note: we definitely want an experience involving children.)

6. How do you think the children felt about you as a teacher? (Note: pause for answer.)
   a) What incidents or reactions on their part led you to think this?

7. Think of a teacher you have known whom you hold in particularly high esteem. Describe this teacher to me so that I can understand what sort of person he or she is and why you feel as you do. (Note: if any question is raised about whether the teacher mentioned in earlier interviews should be the one described again, explain "We are interested in anyone whom you now hold in particularly high esteem.")

8. Now try to think of a teacher whom you didn't like, or of whom you feel especially critical. Describe this teacher to me so that I can understand what sort of person he or she is and why you feel as you do.

9. As a person who is planning to be a teacher, you have proably given some thought to ideas or attitudes you would like to develop in the children you teach, ideals that reflect your personal convictions. Can you tell me about the most important of these and how you think they might affect your teaching?

Appendix C

10. People are the same in many ways but no two people are alike. What are some ways in which you are different from other people? (Note: We want the girl's present feelings. If any question is raised about what was said in an earlier interview, say "We're interested in how you feel about yourself right now.")

11. If you were somehow granted the ability to change yourself in any way you choose, in what ways would you like to be different from the way you are?

12. How about your good points? What helps you to be successful in some of your activities?

13. You are on your way to the audio-visual room with your class. The children are excited about the prospect of seeing this particular film, and chatter excitedly as they go. One child runs ahead to hold the door and several others follow, colliding with a teacher who proceeds to scold the children severely. How would you handle this situation?

14. Can you tell me of an occasion during your student teaching when you were requested to do or instructed to carry through something with your class or a child which was contrary to your desires? How did you feel about it and what did you do?

15. During your practice teaching experience you were undoubtedly faced with a problem of discipline. Could you describe this situation to me, how you felt, and what you did?

16. Imagining that such would be possible, describe to me as specifically as you can what your ideal teaching placement would be like.

17. One day after music class a child asks you to explain to her what music is. What would you say?

18. How do you feel about the part your Education 73-75 instructor played in helping you to become a teacher?

Appendix C

Sixth Interview Questions

We wish we could sit down with you and talk at length about the experiences you are having this year in your first full-time teaching. We are genuinely interested in your feelings about it, how it is going, what it means to you, and in general--what it is like to change from being a student to being a teacher.

However, because we do not want to take too much of your time, as an alternative to talking with you, we would like you to write your answers to the questions on the following pages, and hope that you will write as fully as possible to give us a clear picture of your present situation as you see it. (Adequate writing space was allotted for each question.)

1. Now that you are teaching full time, what aspects of your work are most satisfying to you--do you enjoy the most? Please explain.

2. What aspects of your work do you find most difficult? Please explain.

3. What aspects of your work do you find least satisfying (enjoy the least)? Please explain.

4. What aspects of your work are of greatest concern to you, that is, worry you? Please explain.

5. How do you feel about the four years you spent at the University? Now that you are a teacher, which of the experiences that occurred in the previous four years do you think were most valuable or helpful to you?

6. Is there anything else that you would like to share with us? We would be glad to have any additional ideas or comments that you might have.

May we again express our sincere appreciation of the time, thought and cooperation you have given to the Teacher Education Research Project.

Appendix C

Seventh Interview Questions

We are again asking you to write out answers to some questions, although we would much prefer to sit down and talk with each one of you, as we are really interested in knowing about the experiences you are having. In answering the questions on the following pages, we hope you will write as fully as possible to give us a clear picture of your present situation as you see it.

If you feel you do not have time to write all you wish in answering these questions, you may keep the questionnaire and mail it back to us. (Adequate writing space was allotted for each question.)

1. Now that you are almost half way through your first year of teaching what do you feel, for you, are the most important functions of the teacher?

2. Considering what you have just mentioned as being important, how satisfied do you feel with the way things are developing in your classroom?

3. What are some of the things that are important in helping you decide what will be going on in your classroom in the next month or so?

4. In thinking about the children in your classroom what special concerns, if any, do you have about them? Please explain fully.

5. Are there children in your room who make you feel especially good about teaching? Which ones are these? (You may use numbers from the class list to identify the children rather than writing their names.) Please explain what it is about them that makes you feel good.

6. Are there children in your room who make you feel especially frustrated about teaching? Which ones are these? (You may use numbers from the class list to identify the children rather than writing their names.) Please explain what it is about them that makes you feel frustrated.

7. In our interview last spring some of you expressed concern about discipline. How has it worked out for you this year? We are interested in how you are establishing a working relationship with the children. Are you satisfied with conditions as they are? If not, how do you hope to improve the situation?

Appendix C

8. What sorts of contacts have you had with the parents of children in your class? How do you feel about these?

Appendix C

Eighth Interview Questions

1. Now that you have nearly finished your first year of full-time teaching, how do you feel about it?

2. Of all the things that have happened this year what experiences stand out as the most rewarding?
   a) In what ways were they rewarding?
   b) Where there any especially rewarding experiences with the children?

3. What were the most disappointing experiences?
   a) In what ways were they disappointing?
   b) Were there any especially disappointing experiences with the children?

4. With what aspects of your work as a teacher do you feel most satisfied? Why? (or) In what way?

5. With what aspects of your work as a teacher do you feel least satisfied? Why? (or) In what way?

6. If you could start the whole year over again, what would you do differently?
   a) In what way would you do it differently?
   b) Why?

7. How do you feel about the children in your class?
   a) As you look back does it seem to you that your thinking about children has changed since the beginning of the year?
   b) In what ways?

8. Which children in your classroom appeal to you the most? (Use class list with numbers, list numbers on face sheet.) Why? (If S says "I like them all." say, I'm sure you do, but we all prefer some people to others. Which ones do you tend to prefer?)

9. Which children in your classroom appeal to you the least? Why?

10. Are you teaching the grade you requested in your application?
    a) (If no) Which grade did you request?
    b) How do you feel about this particular grade?
    c) What grade would you like to teach next year?

11. Were there times during the year when you felt you needed help or advice?

a) To whom did you go at times like this?
b) What kind of help did you need?

12. Here is a list of "subjects" or "content areas" which are part of the curriculum of most elementary schools. (Show face sheet where subjects are listed.) We would like you to rank them in the order in which you enjoy teaching them. Which one of these do you enjoy teaching the least? (Mark this #9 on sheet.) Which one do you enjoy teaching the most? (Mark this #1 on sheet.) If there are other subjects in the curriculum then list those under others and include in the ranking.
   a) Why do you enjoy teaching _________ (preferred subject) the most?
   b) What kinds of things do you do in _________ (preferred subject)?
   c) Why do you enjoy teaching _________ (least preferred subject) the least?
   d) What kinds of things do you do in _________ (least preferred subject)?

13. Now let's think about teachers. We would like you to describe the kind of teacher you would ideally like to be.
   a) In what ways do you feel that you have been able to be the kind of teacher you would like to be?
   b) In what ways do you feel you have been unable to be the kind of teacher you would like to be?
   c) Why? (or) What prevented you from being this kind of teacher?

14. We have talked a great deal about you as a teacher, but we are also interested in you as a person. How would you describe yourself at this point?
   a) How would you like to change if you could?
   b) Which of your qualities or characteristics do you value the most? Why?

15. By this time you are probably aware that one of the differentials in the Teacher Education Research Project was the manner in which your Education 73-75 course was taught. Do you feel that this experience made any difference to you as a person or a teacher?
   a) How do you feel about the observations (TERP) that were made during this year? Were they typical of what went on in the classroom at other times?
   b) Do you have any other feelings you would like to express about being a subject in this project?

APPENDIX D

TEACHER REPORT: TEACHER COMMUNICATION SCALE (ACTUAL)

Instructions: Place a check in the space which you think describes you best as you are at the present time.

		YES	yes	no	NO
1. Some teachers can give pupils the facts about many things.	Am I like this?				
2. Some teachers ask lots of questions about things in school.	Am I like this?				
3. Some teachers suggest different things so pupils can choose for themselves.	Am I like this?				
4. Some teachers are too busy to notice when pupils need help.	Am I like this?				
5. Some teachers ask how pupils think things should be done.	Am I like this?				
6. Some teachers tell pupils exactly what to do.	Am I like this?				
7. Some teachers make a pupil feel as if they don't like him.	Am I like this?				

Appendix D

		YES	yes	no	NO
8. Some teachers ask pupils how they think and feel about things.	Am I like this?				
9. Some teachers let pupils know how they feel and think about things.	Am I like this?				
10. Some teachers listen to pupils when they want to tell them something.	Am I like this?				
11. Some teachers can explain things clearly.	Am I like this?				
12. Some teachers make pupils feel as if they were their friend.	Am I like this?				

Appendix D

TEACHER REPORT: TEACHER COMMUNICATION SCALE (IDEAL)

Instructions: Place a check in the space that describes you best as you would like to be, or as you hope that you may become, sometime in the future.

		YES	yes	no	NO
1. Some teachers can give pupils the facts about many things.	Do I want to be like this?				
2. Some teachers ask lots of questions about things in school.	Do I want to be like this?				
3. Some teachers suggest different things so pupils can choose for themselves.	Do I want to be like this?				
4. Some teachers are too busy to notice when pupils need help.	Do I want to be like this?				
5. Some teachers ask how pupils think things should be done.	Do I want to be like this?				
6. Some teachers tell pupils exactly what to do.	Do I want to be like this?				
7. Some teachers make a pupil feel as if they don't like him.	Do I want to be like this?				
8. Some teachers ask pupils how they think and feel about things.	Do I want to be like this?				

Appendix D

			YES	yes	no	NO
9.	Some teachers let pupils know how they feel and think about things.	Do I want to be like this?				
10.	Some teachers listen to pupils when they want to tell them something.	Do I want to be like this?				
11.	Some teachers can explain things clearly.	Do I want to be like this?				
12.	Some teachers make pupils feel as if they were their friend.	Do I want to be like this?				

APPENDIX E

TEACHER REPORT: CHILDREN'S COMMUNICATION SCALE

Instructions: Place each pupil's number in the column which you think describes him best. Rate each child on each item.

1. Some children let you know they like you no matter what happens.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

2. Some children listen to you when you want to tell them something.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

Appendix E

3. Some children make you feel as if they don't like you.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

4. Some children give suggestions.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

5. Some children don't answer when you talk to them.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

Appendix E

6. Some children ask you how you think and feel about things.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

7. Some children tell others what they should do.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

8. Some children are always asking how things should be done.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

APPENDIX F

TEACHER REPORT: CHILDREN'S BEHAVIOR CHARACTERISTICS SCALE

Instructions: Presented here are some items which refer to different aspects of children's behavior in school. To rate a child, put his number in the column that you think is most appropriate, the one that describes him best. Please repeat this procedure for each item, and please rate each child in the class on each item.

1. Some children are good at starting games and getting things going. They think of interesting things to do.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

2. Some children quarrel and argue a lot.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

Appendix F

3. Some boys and girls are too shy to make friends easily.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

4. Some children are good at games. They play them better than most children.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

5. Some children are bossy. They always try to run things their own way.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

Appendix F

6. Some children are bashful and don't like to recite in class.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

7. There are some children whom everybody likes. They have a lot of friends.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

8. Some children get mad easily, and lose their tempers.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

Appendix F

9. Some boys and girls stay out of games, and don't play much with other children.

YES Very much like this!	yes A little bit like this!	no Not much like this!	NO Not at all like this!

APPENDIX G

TEACHER REPORT: CHILDREN'S PERSONALITY FACTORS

Instructions: This rating instrument consists of eight personality factor scales. Each scale is represented by a series of five spaces with descriptions at the extremes of each scale. To rate a child, place his identification number in the space which you think corresponds to his location on the scale. Please rate each child in the class on each of the scales.

Avoid the assumption that either end of any scale is "good" or "bad." Experience has shown that either end of a scale can be good or bad, depending upon the criteria against which one is using the factor ratings.

THESE CHILDREN ARE MOST LIKE THIS.	THESE CHILDREN ARE SOMEWHAT LIKE THIS.	THESE CHILDREN DEMONSTRATE THESE TRAITS ABOUT EQUALLY.	THESE CHILDREN ARE SOMEWHAT LIKE THIS.	THESE CHILDREN ARE MOST LIKE THIS.

A.

Critical, stiff, aloof, precise, suspicious, rigid, reserved, cold, prone to sulk, like to work alone.	Warm, outgoing, sociable, good-natured, ready to cooperate, readily laugh, soft-hearted, casual, adaptable, enjoy social recognition.

Appendix G

C.

Emotionally immature, excitable, worrying, gets into fights and accidents, quitting, evades responsibility, changeable in attitudes and interests.

Emotionally mature, stable, constant in interests, calm, realistic, does not get into difficulties.

E.

Submissive, dependent, kindly, soft-hearted, sensitive, easily upset, conventional, conforming.

Assertive, self-assured independent-minded, hard, stern, aggressive, unconventional, rebellious.

F.

Sober, depressed, glum, serious, silent, introspective, languid, slow, incommunicative, pessimistic.

Gay, talkative, enthusiastic, happy-go-lucky, quick and alert, expressive, optimistic.

Appendix G

G.

Undependable, demanding, impatient, quitting, fickle, disregard obligations to people.

Conscientious, determined, perservering, responsible, attentive to people and rules.

H.

Timid, threat-sensitive, withdrawn, careful, retiring in face of opposite sex, restrained.

Adventurous, likes meeting people, carefree, active, overt interest in opposite sex, impulsive.

O.

Secure, confident, cheerful, resilient, expedient, vigorous, complacent.

Worrying, discouraged, lonely, moody, strong sense of duty, hypochondriacal, guilt-prone.

Appendix G

Q4.

Composed, relaxed, low tension drive.	Tense, restlessly active, feel frustrated, irritable.

APPENDIX H

CHILD REPORT: TEACHER COMMUNICATION SCALE (ACTUAL)

Instructions: Will you please put a mark in the space that tells best what kind of a teacher you have.

		YES	yes	no	NO
1. Some teachers give you the facts about many things.	Is my teacher like this?				
2. Some teachers ask lots of questions about things in school.	Is my teacher like this?				
3. Some teachers suggest different things so you can choose for yourself.	Is my teacher like this?				
4. Some teachers are too busy to notice when you need help.	Is my teacher like this?				
5. Some teachers ask you how you think things should be done.	Is my teacher like this?				
6. Some teachers tell you exactly what to do.	Is my teacher like this?				
7. Some teachers make you feel as if they don't like you.	Is my teacher like this?				

Appendix H

			YES	yes	no	NO
8.	Some teachers ask you how you think and feel about things.	Is my teacher like this?				
9.	Some teachers let you know how they feel and think about things	Is my teacher like this?				
10.	Some teachers listen to you when you want to tell them something.	Is my teacher like this?				
11.	Some teachers can explain things clearly.	Is my teacher like this?				
12.	Some teachers make you feel as if they were your friend.	Is my teacher like this?				

Appendix H

CHILD REPORT: TEACHER COMMUNICATION SCALE (IDEAL)

Instructions: Will you please put a mark in the space that tells best what kind of a teacher you would like to have.

		YES	yes	no	NO
1. Some teachers give you the facts about many things.	Would I like a teacher like this?				
2. Some teachers ask lots of questions about things in school.	Would I like a teacher like this?				
3. Some teachers suggest different things so you can choose for yourself.	Would I like a teacher like this?				
4. Some teachers are too busy to notice when you need help.	Would I like a teacher like this?				
5. Some teachers ask you how you think things should be done.	Would I like a teacher like this?				
6. Some teachers tell you exactly what to do.	Would I like a teacher like this?				
7. Some teachers make you feel as if they don't like you.	Would I like a teacher like this?				
8. Some teachers ask you how you think and feel about things.	Would I like a teacher like this?				

Appendix H

			YES	yes	no	NO
9.	Some teachers let you know how they feel and think about things.	Would I like a teacher like this?				
10.	Some teachers listen to you when you want to tell them something.	Would I like a teacher like this?				
11.	Some teachers can explain things clearly.	Would I like a teacher like this?				
12.	Some teachers make you feel as if they were your friend.	Would I like a teacher like this?				

APPENDIX I

CHILD REPORT: PEER COMMUNICATION SCALE

Instructions: After reading the sentence, please put the numbers of the boys and girls in the boxes that you think belong there.

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1. Some children let you know they like you no matter what happens. Who are they?

2. Some children listen to you when you want to tell them something. Who are they?

3. Some children make you feel as if they don't like you. Who are they?

4. Some children offer you ideas, but let you decide for yourself. Who are they?

5. Some children don't answer when you talk to them. Who are they?

Appendix I

6. Some children ask you how things seem to you. Who are they?

7. Some children tell you what you should do. Who are they?

8. Some children ask you how you think things should be done. Who are they?

APPENDIX J

CHILD REPORT: PEER BEHAVIOR CHARACTERISTICS SCALE

Instructions: After reading the sentence, please put the numbers of the boys and girls in the boxes that you think belong there.

---

1. Which children are good at starting games and getting things going, the ones that think of interesting things to do?

2. Which children quarrel and argue a lot?

3. Who are the boys and girls that are too shy to make friends easily?

4. Which ones are good at games; they play them better than most children?

5. Which children are bossy; they always try to run things their own way?

Appendix J

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6. Which children are bashful, and don't like to recite in class?

7. Which are the ones that everybody likes; they have a lot of friends?

8. Which children get mad the easiest, and lose their tempers?

9. Who are the boys and girls that stay out of games; they don't play much with the other children?

APPENDIX K

CHILD REPORT: CHILDREN'S BEHAVIOR CHARACTERISTICS SCALE (ACTUAL)

		YES	yes	no	NO
1. Some children are good at starting games and getting things going. They think of interesting things to do.	Am I like this?				
2. Some children quarrel and argue a lot.	Am I like this?				
3. Some boys and girls are too shy to make friends easily.	Am I like this?				
4. Some children are good at games. They play them better than most children.	Am I like this?				
5. Some children are bossy. They always try to run things their own way.	Am I like this?				
6. Some children are bashful and don't like to recite in class.	Am I like this?				
7. There are some children that everybody likes. They have a lot of friends.	Am I like this?				

Appendix K

		YES	yes	no	NO
8. Some children get mad easily, and lose their tempers.	Am I like this?				
9. Some boys and girls stay out of games, and don't play much with other children.	Am I like this?				

Appendix K

CHILD REPORT: CHILDREN'S BEHAVIOR CHARACTERISTICS SCALE (IDEAL)

		YES	yes	no	NO
1. Some children are good at starting games and getting things going. They think of interesting things to do.	Do I want to be like this?				
2. Some children quarrel and argue a lot.	Do I want to be like this?				
3. Some boys and girls are too shy to make friends easily.	Do I want to be like this?				
4. Some children are good at games. They play them better than most children.	Do I want to be like this?				
5. Some children are bossy. They always try to run things their own way.	Do I want to be like this?				
6. Some children are bashful and don't like to recite in class.	Do I want to be like this?				
7. There are some children that everybody likes. They have a lot of friends.	Do I want to be like this?				
8. Some children get mad easily, and lose their tempers.	Do I want to be like this?				

Appendix K

			YES	yes	no	NO
9.	Some boys and girls stay out of games, and don't play much with other children.	Do I want to be like this?				

APPENDIX L

CHILD REPORT: SCHOOL ATTITUDE SCALE

Instructions: Will you please put a mark in the space that tells best how you feel.

		YES	yes	no	NO
1. I enjoy most of the things I do in school.	Do you feel like this?				
2. I don't like some of the things we study in school.	Do you feel like this?				
3. I like to work hard in school.	Do you feel like this?				
$. I would like to move to another classroom if I could.	Do you feel like this?				
5. It is fun to learn the things we study in school.	Do you feel like this?				
6. I am glad to be in this class.	Do you feel like this?				
7. Sometimes I feel like staying away from school.	Do you feel like this?				
8. Everything we do in school is interesting to me.	Do you feel like this?				

Appendix L

			YES	yes	no	NO
9.	I think school is a waste of time.	Do you feel like this?				
10.	Learning is just a lot of hard work.	Do you feel like this?				
11.	I don't like all the hard work we have in school.	Do you feel like this?				
12.	Learning new things is a lot like a game.	Do you feel like this?				

APPENDIX M

CHILD REPORT: PEER CHOICE RATING

Sociometric Card Sort Directions

I. Introduction: "I would like to find out which children in your room you like to play with. I have some cards with the (NAMES) (pictures) of the children in your room on them. We are going to sort these (NAMES) (pictures) so that you can tell me whether you like to play with these children or not." The children will look at each card and sort it as instructed.

II. Sort 1: "If you like to play with these children whose (NAMES) (pictures) you see, place them on top of the BIG YES envelope. If you do not like to play with these children whose (NAMES) (pictures) you see, place them on top of the BIG NO envelope." (The BIG YES envelope should be on the left, the BIG NO envelope on the right.) "Now move the BIG NO envelope way up in the corner of your desk away from you.

III. Sort 2: "Now you have a BIG YES and a LITTLE YES envelope. Now these are the (NAMES) (pictures) of the children you said you like to play with. Maybe there are some of the children in this group that you especially like to play with, or that you like to play with more. I want you to look at these (NAMES) (pictures) again. For the children you especially like to play with, place them on top of the BIG YES envelope, and for the others place them on top of the LITTLE YES envelope. Look at them one at a time and then place them on the BIG YES pile--especially like to play with--or on the LITTLE YES pile--like to play with. Place all of the (NAMES) (pictures) in the two envelopes." (When this sort is finished, turn in the three envelopes.)

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